SANDGROUSE

VOLUME 37(2) 2015

OSME

ORNITHOLOGICAL SOCIETY OF THE MIDDLE EAST
THE CAUCASUS AND CENTRAL ASIA

ORNITHOLOGICAL SOCIETY OF THE MIDDLE EAST THE CAUCASUS AND CENTRAL ASIA

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Cover photo: Indian Roller *Coracias benghalensis*, Al Qurum park, Muscat, Oman, November 2011. © *Andrew Adams*

Records of Paddyfield Warbler *Acrocephalus agricola* in Turkey and evidence for a monotypic taxon

JENS HERING, MARTIN FLADE & MICHAEL WINK

The Paddyfield Warbler *Acrocephalus agricola* has a patchy distribution in eastern Europe and eastern/central Asia. The nominate subspecies *agricola* is thought to breed from the Caspian sea and Aral lake eastwards through Kazakhstan to western Mongolia and northwest China and southwards to Tajikistan, eastern Iran, northern Afghanistan and western Pakistan. The subspecies *septimus* should breed on the coast of the Black sea in Bulgaria, Romania and eastwards through southern Ukraine until the Ural mountains and river Ilek (Kennerley & Pearson 2010). Some authors have even introduced a third subspecies *A. a. capistratus* (Severtsov, 1873), which is however often included in *A. a. agricola*.

Paddyfield Warblers have been recorded from Turkey but their taxonomic status has not been elucidated (Kirwan *et al* 2008a). It is uncertain which of the two putative subspecies breed there *ie agricola* or *septimus* (Kennerley & Pearson 2010). Based on photographs of Paddyfield Warblers at lake Van 8 and 9 May 1987 (van den Berg & Bosman 1988), there was speculation that Turkish birds belong to subspecies *agricola* (Kirwan *et al* 2008a). However, a bird caught and photographed 22 September 1991 in the Göksü delta showed greyish-white underparts and not the typical reddish-orange colouration of the nominate subspecies (van der Have & van den Berk 1995, Kirwan *et al* 2008a). In addition, a number of quite good photos taken in Turkey are at www.surfbirds.com/gallery, most however without mentioning a subspecies.

Studying birds at lake Van (marshes east side of the lake, 38° 29′ 58.25″ N, 43° 19′ 13.94″ E, 1648 m ASL, Plate 1), JH caught four Paddyfield Warblers 26 June 2012. Measurements, photos and blood samples were taken. These data were evaluated to help unravel the

Plate 1. Reeds at the eastern shore of lake Van, east Anatolia, Turkey, 26 June 2012. © *Jens Hering*

taxonomic status of Turkish Paddyfield Warblers. The DNA analysis included Paddyfield Warblers of both subspecies coming from different parts of the distributional range. Previous phylogenetic analyses in the Heidelberg laboratory had suggested that both subspecies can be distinguished by distinctive sequence differences in the mitochondrial cytochrome *b* gene (Leisler *et al* 1997). We expected that allocation of these Turkish birds to one of the subspecies would be straightforward. However, we obtained the surprising result that the two subspecies cannot be distinguished by their mtDNA sequence data nor morphology indicating that the taxon is monotypic.

MATERIALS AND METHODS

Birds were caught using mist nets/tape recordings (recordings from JH and those of Schulze 2003). Biometric data were collected according to the recommendations of the German Ornithologists Union (DO-G 2011). In the vicinity, several other reed warbler species were seen or heard (*Acrocephalus scirpaceus*, *A. melanopogon*, *A. arundinaceus*).

DNA analysis: Samples from *A. agricola* came from different populations located in eastern Europe and Asia (Table 1). The DNA was obtained from blood samples stored in a modified EDTA buffer at −20°C until processing in the Heidelberg laboratory. Total DNA was isolated using standard proteinase K (Merck, Darmstadt) and phenol/chloroform procedures.

We amplified a fragment of the mitochondrial cytochrome *b* gene (cyt *b*) (> 940 nt) as an informative marker gene which has been used by MW before for phylogeny reconstruction of reed warblers (Leisler *et al* 1997, Arbadi *et al* 2014a, b). The PCR amplifications of cyt *b* and COI were performed in 50 µl reaction volumes containing 1 × PCR buffer (Bioron, Ludwigshafen), 100 µM dNTPs, 0.2 units of *Taq* DNA polymerase (Bioron, Ludwigshafen), 200 ng of DNA and 5 pmol of primers (as in Arbadi *et al* 2014a, b). Thermal cycling was carried out under the following conditions: 5 min at 94°C, followed by 35 cycles of 40 s at 94°C, 40 s at 52.0°C, 1 min at 72°C and a final extension at 72°C for 10 min. PCR products were precipitated with 4 M NH_4Ac and ethanol (1:1:6) and a centrifugation for 15 min (13 000 rpm). Sequencing was performed using the ABI 3730 automated capillary sequencer (Applied Biosystems, CA, USA) with the ABI Prism Big Dye Terminator Cycle Sequencing Ready Reaction Kit 3.1 (carried out by STARSEQ GmbH, Mainz, Germany). For sequencing, the same primers were used as for the initial PCR amplifications.

The nucleotide sequences were aligned manually with BioEdit version 7.0.9.0. No internal stop codons or frame-shifts were observed in the sequences that were translated entirely by using the chicken mitochondrial code. Phylogenetic trees were reconstructed using Maximum likelihood (ML) in MEGA version 5.2 (Tamura *et al* 2011) with related *Acrocephalus* species as outgroups.

Table 1. Origin of Paddyfield Warblers *Acrocephalus agricola* used for DNA analysis. Song types: A = partly rather similar to *A. schoenobaenus*; B = most similar to *A. palustris*; C = partly rather similar to a fast singing *A. scirpaceus*; D = different to A–C.

Taxon	Song type	Number of samples	Origin	Collector
Acrocephalus agricola				
A. a. septimus	B	9	Charkiv region, NE Ukraine	A Poluda
	A	10	Odessa, SW Ukraine	A Poluda
A. a. agricola	D	5	W Mongolia	A Bräunlich
	C	10	Omsk region, W Siberia	Y Redkin, M Kalyakin
	B	2	Lake Alakol, Kazakhstan	G Nikolaus
?		3	Lake Van, Turkey	J Hering

Plates 2–4. Paddyfield Warblers *Acrocephalus agricola* caught at lake Van 26 June 2012 and used for DNA studies. © *Jens Hering*

Robustness of nodes was assessed by 1000 bootstrap replications. Sequence data have been submitted to GenBank (accession numbers KR181847–KR181885).

RESULTS

The four Paddyfield Warblers caught at lake Van were two males and two females with pronounced brood patches (Plates 2–5). Therefore, we consider that the birds were breeders. The plumage of all Paddyfield Warblers was worn out, which made a biometric analysis problematic.

DNA analysis: We had samples from the two putative subspecies *A. a. septimus* (n = 22) and *A. a. agricola* (n = 17). As expected *A. agricola* clusters as a sister with *A. concinens* (Leisler *et al* 1997) (Figure 1). To our surprise, there was no consistent difference between

Figure 1. Phylogeny and phylogeography of Paddyfield Warblers based on a ML analysis of the mitochondrial cytochrome *b* gene. Outgroup sequences (identified by an appropriate accession number) were retrieved from GenBank: *Acrocephalus concinens* (FJ88027, Fregin *et al* 2009), *A. scirpaceus* (NC0100227, Singh *et al* 2008), *A. palustris* (AJ004774, Helbig & Seibold 1999), *A. paludicola* (AJ004292, Leisler *et al* 1997) and *A. dumetorum* (AJ004773, Helbig & Seibold 1999). Number at the nodes are Bootstrap values from 1000 replications.

The evolutionary history was inferred by using the Maximum Likelihood method based on the Kimura 2-parameter model (Kimura 1980). The tree with the highest log likelihood (–2708.3223) is shown. The percentage of trees in which the associated taxa clustered together is shown next to the branches. Initial tree(s) for the heuristic search were obtained automatically by applying Neighbor-Join and BioNJ algorithms to a matrix of pairwise distances estimated using the Maximum Composite Likelihood (MCL) approach, and then selecting the topology with superior log likelihood value. A discrete Gamma distribution was used to model evolutionary rate differences among sites (5 categories (+*G*, parameter = 0.2849)). The rate variation model allowed for some sites to be evolutionarily invariable ([+*I*], 14.7058% sites). The tree is drawn to scale, with branch lengths measured in the number of substitutions per site. The analysis involved 44 nucleotide sequences. Codon positions included were 1st+2nd+3rd position. All positions with less than 95% site coverage were eliminated. There were a total of 940 positions in the final dataset. Evolutionary analyses were conducted in MEGA5.2 (Tamura *et al* 2011).

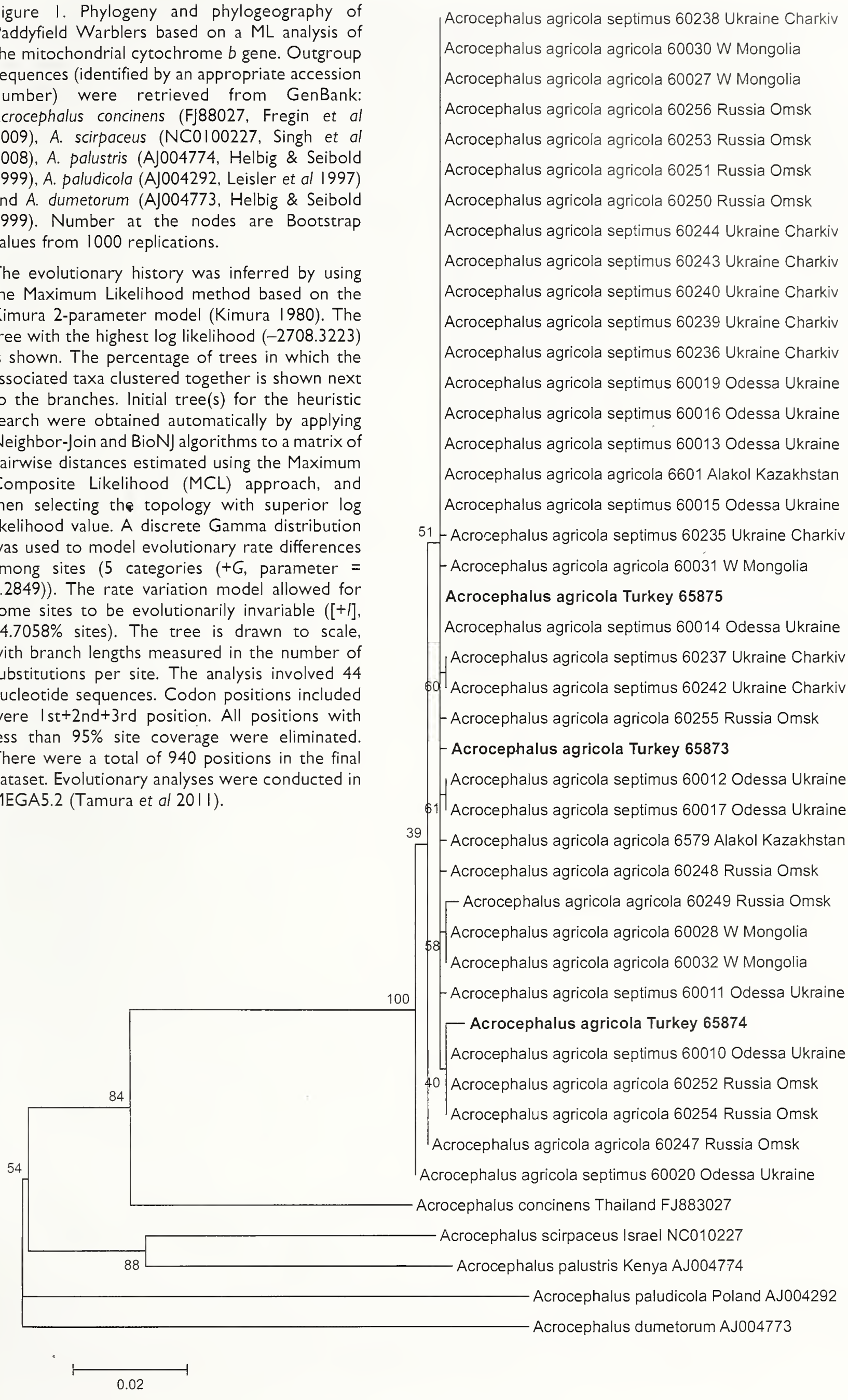
Acrocephalus agricola septimus 60238 Ukraine Charkiv
Acrocephalus agricola agricola 60030 W Mongolia
Acrocephalus agricola agricola 60027 W Mongolia
Acrocephalus agricola agricola 60256 Russia Omsk
Acrocephalus agricola agricola 60253 Russia Omsk
Acrocephalus agricola agricola 60251 Russia Omsk
Acrocephalus agricola agricola 60250 Russia Omsk
Acrocephalus agricola septimus 60244 Ukraine Charkiv
Acrocephalus agricola septimus 60243 Ukraine Charkiv
Acrocephalus agricola septimus 60240 Ukraine Charkiv
Acrocephalus agricola septimus 60239 Ukraine Charkiv
Acrocephalus agricola septimus 60236 Ukraine Charkiv
Acrocephalus agricola septimus 60019 Odessa Ukraine
Acrocephalus agricola septimus 60016 Odessa Ukraine
Acrocephalus agricola septimus 60013 Odessa Ukraine
Acrocephalus agricola agricola 6601 Alakol Kazakhstan
Acrocephalus agricola septimus 60015 Odessa Ukraine
51
Acrocephalus agricola septimus 60235 Ukraine Charkiv
Acrocephalus agricola agricola 60031 W Mongolia
Acrocephalus agricola Turkey 65875
Acrocephalus agricola septimus 60014 Odessa Ukraine
Acrocephalus agricola septimus 60237 Ukraine Charkiv
60
Acrocephalus agricola septimus 60242 Ukraine Charkiv
Acrocephalus agricola agricola 60255 Russia Omsk
Acrocephalus agricola Turkey 65873
Acrocephalus agricola septimus 60012 Odessa Ukraine
61
Acrocephalus agricola septimus 60017 Odessa Ukraine
39
Acrocephalus agricola agricola 6579 Alakol Kazakhstan
Acrocephalus agricola agricola 60248 Russia Omsk
Acrocephalus agricola agricola 60249 Russia Omsk
Acrocephalus agricola agricola 60028 W Mongolia
58
Acrocephalus agricola agricola 60032 W Mongolia
Acrocephalus agricola septimus 60011 Odessa Ukraine
100
Acrocephalus agricola Turkey 65874
Acrocephalus agricola septimus 60010 Odessa Ukraine
40
Acrocephalus agricola agricola 60252 Russia Omsk
Acrocephalus agricola agricola 60254 Russia Omsk
Acrocephalus agricola agricola 60247 Russia Omsk
84
Acrocephalus agricola septimus 60020 Odessa Ukraine
54
Acrocephalus concinens Thailand FJ883027
Acrocephalus scirpaceus Israel NC010227
88
Acrocephalus palustris Kenya AJ004774
Acrocephalus paludicola Poland AJ004292
Acrocephalus dumetorum AJ004773
0.02

Table 2. Haplotype variation in Paddyfield Warblers. Documentation of variable sites in the cyt *b* dataset. Numbers refer to IPMB accession numbers. '.'= identical base to the sequence in the top lane. ? = unresolved nucleotide.

	C C T C T C A G A C C G G G G T G G A T T
#A. a. _agricola_6579_Alakol_Kazakhstan	C C T C T C A G A C C G G G G T G G A T T
#A. a. _agricola_60253_Russia_Omsk	. . . . C . . . .
#A. a. _agricola_60250_Russia_Omsk	. . . . C . . . .
#A. a. _agricola_60251_Russia_Omsk	. . . . C . . . .
#A. a. _agricola_60256_Russia_Omsk	. . . . C . . . .
#A. a. _agricola_60027_W_Mongolia	. . . . C . . . .
#A. a. _septimus_60019_Odessa_Ukraine	. . . . C . . . . ?
#A. a. _septimus_60019_Odessa_Ukraine	. . . . C . . . . ?
#A. a. _agricola_60030_W_Mongolia	. . . . C . . . .
#A. a. _septimus_60013_Odessa_Ukraine	. . . . C . . . .
#A. a. _septimus_60014_Odessa_Ukraine	. . . . C . . . .
#A. a. _septimus_60016_Odessa_Ukraine	. . . . C . . . .
#A. a. _septimus_60236_Ukraine_Charkiv	. . . . C . . . .
#A. a. _septimus_60238_Ukraine_Charkiv	. . . . C . . . . ?
#A. a. _septimus_60239_Ukraine_Charkiv	. . . . C . . . .
#A. a. _septimus_60240_Ukraine_Charkiv	. . . . C . . . .
#A. a. _septimus_60243_Ukraine_Charkiv	. . . . C . . . . ?
#A. a. _septimus_60244_Ukraine_Charkiv	. . . . C . . . .
#A. a. _septimus_60019_Odessa_Ukraine	. . . . C . . . . ?
#A. a. _Turkey_65875	. . . . C . . . .
#A. a. _agricola_6601_Alakol_Kazakhstan	. . . . C . . . . G
#A. a. _septimus_60015_Odessa_Ukraine	. . . . C . . . . G
#A. a. _agricola_60252_Russia_Omsk	. . . . C . . . . . . A . . . .
#A. a. _agricola_60254_Russia_Omsk	. . . . C . . . . . . A . . . .
#A. a. _agricola_60247_Russia_Omsk	. . . . C . . . . A . C . ?
#A. a. _agricola_60028_W_Mongolia	. . . . C . . . . C . . . . .
#A. a. _agricola_60032_W_Mongolia	. . . . C . . . . C . . . . .
#A. a. _agricola_60249_Russia_Omsk	. . C . C . . . . . . A . . . C . . . .
#A. a. _agricola_60248_Russia_Omsk	. . . . C . . . . A . . . .
#A. a. _agricola_60255_Russia_Omsk	. . . . C . . . . . T . . . .
#A. a. _agricola_60031_W_Mongolia	. . . . C . . . . C . . .
#A. a. _septimus_60010_Odessa_Ukraine	. . . . C . . . . A . . . .
#A. a. _septimus_60011_Odessa_Ukraine	. . . . C . . . . A . . . . .
#A. a. _septimus_60012_Odessa_Ukraine	. . . . C T . . . . ?
#A. a. _septimus_60017_Odessa_Ukraine	. . . . C T . . . .
#A. a. _septimus_60020_Odessa_Ukraine	. . . . C . . A . . . . . . A . . A . C ?
#A. a. _septimus_60235_Ukraine_Charkiv	. T . . C . . . .
#A. a. _septimus_60237_Ukraine_Charkiv	. . . . C . G . . . .
#A. a. _septimus_60242_Ukraine_Charkiv	. . . . C . G . . . . ?
#A. a. _Turkey_65873	T . . . C . . . .
#A. a. _Turkey_65874	. . . T C . . . G T . . . A . . . . . .

both subspecies as can be seen from a haplotype analysis (Table 2) and the phylogeny reconstruction by maximum likelihood (ML) (Figure 1). An identical result was obtained from an analysis using the mitochondrial COI gene (data not shown). Twenty-one variable sites were found in the cytochrome *b* data set (Table 2). Individuals differed by one or a

few single nucleotide exchanges indicating a high degree of gene flow within this species. Twenty birds, which include both subspecies and one of JH's birds from Turkey show an identical haplotype, which would be quite atypical if two distinct subspecies exist (Arbadi *et al* 2014a, b).

As can be seen from Table 2 and Figure 1, the genetic analysis does not give evidence for two distinct subspecies nor allows subspecies allocation of the Turkish birds (only three of the four birds caught by JH produced DNA sequences; in one the DNA had apparently been degraded).

DISCUSSION

Paddyfield Warblers were seen the first time in Turkey in May 1986 at lake Van and observed almost yearly there during the breeding season (van den Berg & Bosman 1988, van den Berk *et al* 1993, Kirwan *et al* 2008a, b). However, a breeding record (nests, feeding adults) has not been obtained there yet or elsewhere in Turkey. A fledgling was recorded at lake Van 23 June 1994 (Kirwan *et al* 2008b). JH's record of two females with brood patches is a strong indication that the Paddyfield Warbler breeds in Turkey.

Plate 5. Female *Acrocephalus agricola* caught at lake Van 26 June 2012 and showing an obvious brood patch. © *Jens Hering*

We were surprised that the genetic evaluation of a larger set of Paddyfield Warblers coming from areas inhabited by both subspecies, did not show any significant or distinctive differentiation. In the initial work (Leisler *et al* 1997) only a few specimens were available, which came from Crimea (presumably *septimus*) and eastern Kazakhstan (presumably *agricola*). Because the sequence divergence between the samples was quite high (4.5%) it was concluded that both subspecies deserved distinct taxonomic status, although it is assumed that they cannot be distinguished by morphological data. As a consequence of the DNA analyses, which had been summarized by Sangster (1997), Kennerley & Pearson (2010) treated *A. agricola* as a polytypic species. Our new analyses, based on a large data set, clearly show that the analyses reported in Leisler *et al* (1997) must have been wrong. It is difficult to identify the source of error almost 18 years later: it could have been a wrongly labelled sample, but more likely a DNA sequence which came from a nuclear copy of the mitochondrial cyt *b* gene (such nuclear copies are sometimes amplified by PCR and can give misleading results).

The low number of haplotypes within the species indicates recent speciation and range expansion, similar to the situation in *A. palustris* (Arbadi *et al* 2014b). It should be mentioned that an unambiguous identification of both subspecies using morphology has not yet been achieved (Kennerley & Pearson 2010). Combining the arguments from morphology and genetics it is likely that the Paddyfield Warbler is a monotypic species and that the patchy distribution is not indicative of differentiation into two distinct subspecies.

Paddyfield Warblers from the Ukrainian Black sea coast, from Kazakhstan, from the west Siberian lowlands (Irtysh marshes, Omsk oblast) and from west Mongolia show quite different song types (see Table 1). Song recordings have been collected by Hans-Heiner Bergmann (Kazakhstan), Anatoly Poluda (southwest Ukraine and eastern central Ukraine), Martin Flade, Yaroslav Redkin and Mikhail Kalyakin (west Siberia) and Axel Bräunlich (west Mongolia), together with blood samples of the singing males (Ukraine, west Siberia, Mongolia), which were analysed in this study. However, although the warblers produced very different song types their mtDNA sequences did not reveal a similar differentiation.

ACKNOWLEDGEMENTS

The following helped in the field and/or discussed reed warbler taxonomy: Heidi Hering, Jochen Martens, Karl Schulze-Hagen, Dieter Saemann, Hans Winkler. We thank colleagues who provided samples for this study (Table 1) and Hedi Sauer-Gürth for excellent assistance in the lab (IPMB).

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Monitoring landbird populations in western Cyprus with particular reference to Paphos District

DEREK POMEROY & FRANK WALSH

Important changes are occurring in the populations of birds in Cyprus, owing to habitat loss and modification as a result of agricultural, and particularly tourist, developments, probably compounded by climate change and especially increasing aridity. In western Cyprus, mainly within Paphos District, we used Distance sampling to make population estimates for 32 species of landbirds for the period 2007–2010, in seven distinct land-use types. For an additional nine aerial and flocking species, it was only possible to estimate relative abundance, whilst notes were made of a further 17 less common species, whose numbers were insufficient for population estimates. Semi-natural habitats, such as forest and machis, were the most extensive and consequently of high conservation importance, as they harbour most of the bird populations and the most distinctive avifauna. However, arable land had the highest densities. Overall bird population densities for western Cyprus proved to be relatively low, particularly in semi-natural habitats, ranging from 3.3 to 5.6 birds per ha. Nevertheless, population estimates based on the data presented here provide the most cogent to date for species of semi-natural habitats. Altogether, Paphos District was estimated to have an average of *c*5 birds per ha, and a total of 700 000 breeding birds.

INTRODUCTION

Landbird populations on Cyprus are changing, and for many reasons. Currently, habitat loss, or change, is almost certainly having the biggest impact on landbirds, but climate change may already be having an effect too, and this will increasingly be the case, with drier years predicted. According to the Cyprus Department of Environment (2010),

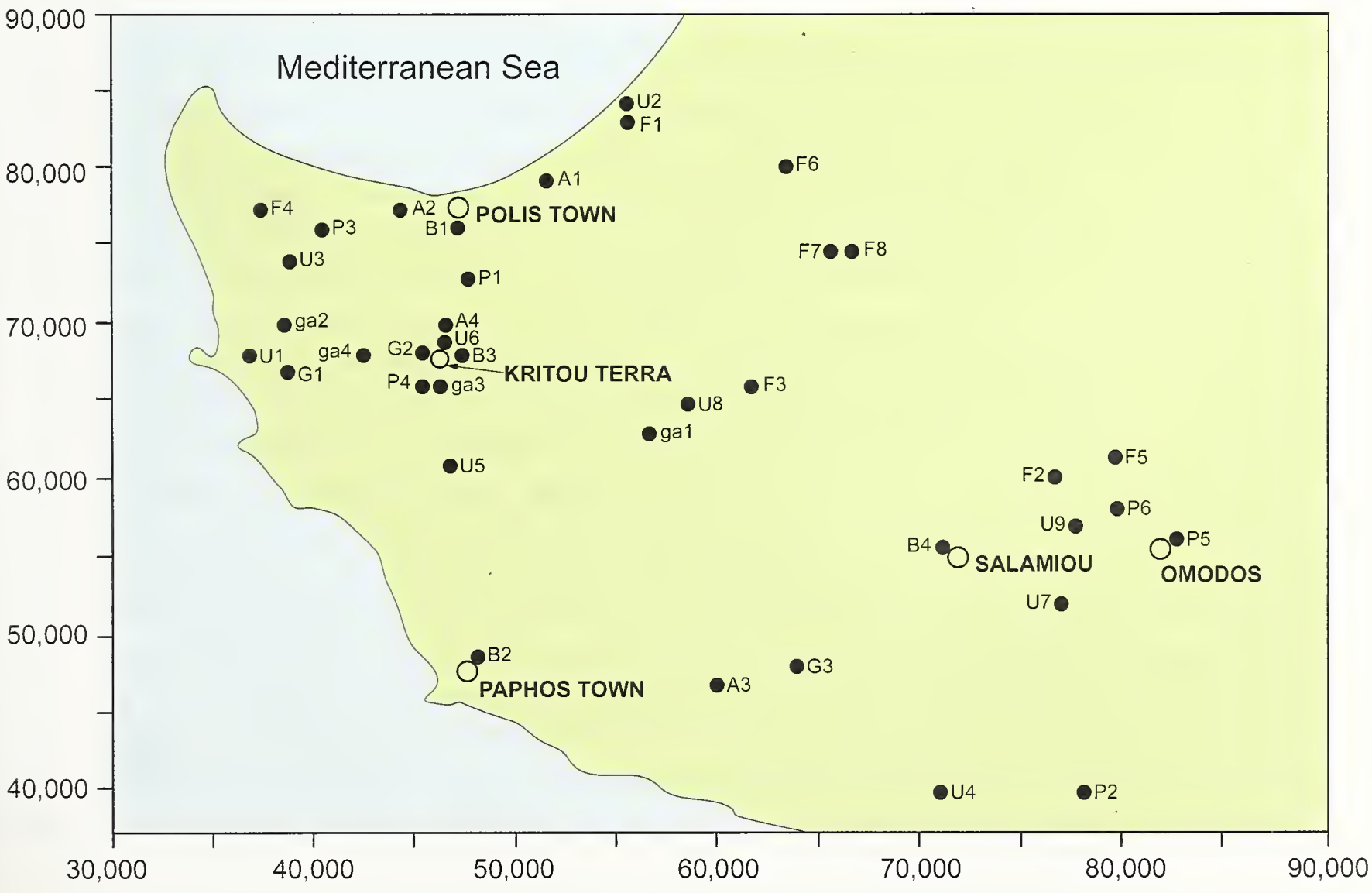

Figure 1. Map of western Cyprus showing location of sites listed in Table 1. Marginal co-ordinates refer to the Cyprus UTM system.

reporting on the climate of Cyprus as a whole, "annual precipitation has been decreasing at an average [rate] of one mm per year over the past century, while the temperatures have increased by 0.5°C over the same period". In other words, rainfall, which was already relatively low over most of the island, has already dropped by *c*100 mm. There is evidence too, that droughts (years with less than 80% of the long-term average rainfall) are becoming more frequent (Cyprus Meteorological Service 2012) and that the decline in rainfall has been faster in the upland areas of western Cyprus (Rossel 2001). A drier climate will mean less plant growth, and hence less food for insects. So birds that feed directly on plants, especially their fruits and seeds, as well as insectivorous birds, will be negatively affected, whilst that in turn will mean less for those at the top of the food chains, namely birds of prey and other predators such as Rollers *Coracias garrulus* and vultures.

A few species of birds may benefit from a drier climate; notably those, such as Calandra Lark *Melanocoryphra calandra* and Spectacled Warbler *Sylvia conspicillata*, which are characteristic of the drier parts of the island. These may spread westwards whilst the species already commoner in the wetter west of the island will be those most likely to decline. It is hard to know by how much the various changes in habitats and climate will affect birds and hence the need for monitoring their populations, with a view to proposing management actions wherever that may be practicable. If a species is declining, then it may be necessary to consider actions to halt or even reverse that process *eg* by protecting more of its required habitat, changing farming practices or revising hunting laws. Action is particularly called for if the species is already rare or if its breeding distribution is confined to Cyprus, as are the Cyprus Wheatear *Oenanthe cypriaca* and Cyprus Warbler *Sylvia melanothorax*. Four species have endemic races on the island, namely Eurasian Scops Owl *Otus scops cyprius*, Coal Tit *Periparus ater cypriotes*, Short-toed Tree-creeper *Certhia brachydactyla dorothea* and Eurasian Jay *Garrulus glandarius glaszneri*. For these endemic species and races, the Cyprus government, supported by NGOs, has the responsibility of ensuring their survival.

There are two stages for checking on species' welfare: knowing how many individuals there are (especially the sizes of their breeding populations) and then monitoring how their populations change in distribution and size with time. BirdLife Cyprus monitors both water and landbirds through a series of counting schemes, whilst the game and fauna service of Cyprus monitors numbers of raptors and other landbirds in a number of key sites, as well as several important game species including Chukar *Alectoris chukar* and Black Francolin *Francolinus francolinus*. The Cyprus government's forest department has a special concern for several raptors, including Griffon Vulture *Gyps fulvus*, Bonelli's Eagle *Hieraetus fasciatus* and Northern Goshawk *Accipiter gentilis*, for these species nearly always nest in forests. In this paper, we are only considering landbirds which regularly breed in western Cyprus, and which were recorded during our surveys. Inland passage migrants will be considered in a separate paper. Population estimates of some breeding species in western Cyprus have already been made, in each case using both transect counts and at least one other method *ie* Black Francolin (Pomeroy 2014), Common Kestrel *Falco tinnunculus*, Scops and Little Owls *Athene noctua* (Pomeroy & Walsh 2013) and Roller (Pomeroy *et al* 2013). Walsh & Pomeroy (2012) documented the spread of the Collared Dove *Streptopelia decaocto* and detailed studies of Northern House Martins *Delichon urbicum* have been made (Walsh *et al* 2013). Much attention has also been paid to the spread of breeding Sardinian Warblers *Sylvia melanocephala*, and the apparently negative effect of this on the endemic Cyprus Warbler *S. melanothorax* (Pomeroy & Walsh 2002, Jones 2006, Ieronymidou *et al* 2012, Flint & McArthur 2014, Pomeroy *et al* in review).

There are many methods available for monitoring bird populations (*eg* Bibby *et al* 2000, Buckland *et al* 2005). We document the recent state of breeding landbirds in western Cyprus and present estimates of their current populations in that part of western Cyprus which falls within Paphos administrative district, as described below. Paphos District itself is particularly important for bird conservation, as reflected in the declaration of 52% of PD as Important Bird Areas (Hellicar *et al* 2014). This provides a sound base from which to monitor changes as people and climate alter the environment. Following the example of bird population estimates for the UK (Newson *et al* 2005) we used land-use as a basis of sampling. We hope also to show which forms of land-use are most important for each of the 41 breeding species of landbirds for which we have adequate data, particularly for those of conservation concern.

METHODS

Each of 38 transect routes, widely dispersed in western Cyprus, were repeatedly walked in the six breeding seasons 2006–2011 (Table 1, Appendix 4). Most were in PD, although with fewer sites in the south, three in adjacent parts of Lefkosia and two were just within Lemesos District, the furthest east being near the village of Avdimou (Figure 1). Because it is a well-defined area, population estimates were made for PD, but data from similar habitats in adjacent districts were used to increase the sample size when making density estimates. And although there were fewer sites in the south of PD, the habitats found there were considered to be adequately covered elsewhere. Based upon a census of agriculture (Government of Cyprus 1994), Pomeroy & Walsh (2006) used six categories of land use, between them covering virtually every type found in PD and adjacent areas, and covering an altitudinal range of 30–1100 metres asl (Table 1). We used the same six categories in this paper.

Most analyses in the present paper are from data collected between 2007 and 2010, inclusive, during visits of several weeks, typically late April–late May, when most species were breeding. Data sets from years prior to 2007, and for 2011, are less complete (Appendix 4), but have been included in Distance analyses (see below). Each transect was selected to be representative of a particular form of land-use. Most were on minor roads or along farm tracks, none with much vehicular traffic. This allowed us to concentrate on the birds, since walking across country is usually rough and difficult. No site was selected for its known richness of birds, and the overall strategy was therefore one of stratified random sampling. The transects, which consisted of routes 0.8–2.4 km long, were slowly walked between one and three times (but usually twice) each breeding season and all birds detected were recorded. Most birds were seen, but many were detected by their songs or other sounds, particularly those in forests (Pomeroy & Gottschalk 2011).

For 32 of the species all records were marked on a map of the transect as it was walked, and the perpendicular distances from the transect to the birds were recorded in bands (0–5, 5–15, 15–25 and so on up to 85 m, then to 100, 120, 150 and 200 m). Distances were estimated by eye and periodically checked against a tape measure. This group of birds with distance data is referred to, collectively, as 'mapped birds'. Distances for occasional flying birds of the mapped species were taken as the distance at the point of first observation. In contrast, there were two categories of birds which were simply counted. For species which were almost always recorded flying, aerial species namely swifts and hirundines, recording distances was not practical. Secondly, regularly flocking species (Chukar, Feral Pigeon *Columba livia*, Eurasian Jackdaw *Corvus monedula* and House and Spanish Sparrows *Passer domesticus* and *P. hispaniolensis*) were also simply counted, since distances were often hard to give, particularly in urban areas. Together, these are the 'aerial and flocking species'.

Table 1. Site descriptions for 38 transects in western Cyprus.

Land use	Site name	Code[b]	n[a]	Length	Altitude (m)	Rainfall (mm)	Status[c]	Land cover (%)											
								Natural vegetation						Planted vegetation					
								Non woody		Woody				Non woody		Woody			
								<1	>1	0–1	1–3	3–8	>8	<1	>1	0–1	1–3	3–8	>8
FOREST	Yialia pines	F1	17	1680	180	500	F,G,S	64	0.3	32	33	34	1.4						
	Jephalas	F2	27	800	510	700	F,G,S	53	0	22	28	38	12						
	Psilophos	F3	25	1400	460	650	F,G,S	50	0	39	32	20	8						
	Akamas pines	F4	28	1070	370	500	F,S	40	0	22	26	24	0						
	West of Phini	F5	17	1150	630	750	F,G,S	58	0	17	24	26	10						
	Phirokli	F6	15	1280	800	700	F,G,S	35	0	22	23	13	2						
	Stavros lower	F7	17	2200	1050	800	F,G,S	16	0	20	35	28	6						
	Stavros upper	F8	27	2400	1150	800	F,G,S	28	0	27	36	31	8						
	FOREST MEAN							35	0	25	30	27	5.9	0	0	0	0	0	0
UNCULTIVATED	Lara juniper	U1	18	1680	50	450	F,G	27	0	69	35	0	0						
	Yialia broom	U2	17	1240	140	500	F,G,S	58	0	40	15	3.0	0						
	Akamas broom	U3	17	1500	350	500	F,S	25	0	61	14	1.6	0						
	Alektora	U4	20	1070	370	550	-	44	0.3	40	14	1.0	0	7.0	3.3	1.8	2.3	0.6	0
	Akoursos	U5	27	1100	350	650	G?	52	9	40	14	1.6	0						
	KT burnt	U6	20	900	420	600	G?	68	3.2	28	18	6.4	0						
	Ayios Yioryios	U7	27	940	530	650	-	62	0	34	24	6.5	0						
	Kritou Marottou	U8	10	1000	640	600	-	0	0	25	16	3.5	0	0	0	4.7	4.5	1.2	0
	Ag Nick upper	U9	17	950	950	650	-	46	0	37	15	2.6	0	0	0	1.9	0	0	0
	UNCULTIVATED MEAN							50	0.4	42	21	2.6	0	0.8	0.4	1.3	1.2	0.3	0

Table 1 cont. Site descriptions for 38 transects in western Cyprus.

Land use		Site name	Code[b]	n[a]	Length	Altitude (m)	Rainfall (mm)	Status[c]	Land cover (%)											
									Natural vegetation						Planted vegetation					
									Non woody		Woody				Non woody		Woody			
									<1	>1	0–1	1–3	3–8	>8	<1	>1	0–1	1–3	3–8	>8
GRASS/PHYGANA	LOWER ALTITUDE	Lara grass	G1	20	1380	170	550	-	78	0	17	4.7	0.3	0						
		KT grass	G2	17	930	490	600	-	89	0.5	4.5	2.5	0.4	0	0	0	2.0	3.8	1.4	0
		Stavros	G3	20	930	350	550	-	94	10	0	0	0	0						
	UPLAND	Drinia	ga1	14	1050	550	550	-	97	1.2	1.1	0.5	0	0						
		Inia	ga2	15	1000	530	600	-	93	1.5	2.9	0.2	0	0						
		Arodhes	ga3	13	490	620	600	-	98	3.2	0.1	0.3	0	0						
		Phasli	ga4	11	400	520	600	-	91	0	3.4	0.4	0	0						
		GRASS MEAN	ga1–4						91	2.3	4.1	1.3	0.1	0	0.2	0	0.3	0.5	0.2	0
ARABLE	UPLAND	Drinia	ga1	12	550	650	650	-	23	0	0	0	0	0	69	0.5	0.3	0.4	0	0
		Inia	ga2	14	600	530	600	-	23	0.3	3.1	1.5	0	0	53	0	0.9	1.5	0	0
		Arodhes	ga3	13	800	620	600	-	15	0.7	0	0	0	0	66	2.2	0.7	0	0	0
		Phasli	ga4	13	800	520	600	-	12	0	0.7	0.4	0	0	22	0	0	0	0	0
		UPLAND ARABLE MEAN							18	0.3	1.0	0.5	0	0	65	0.7	0.5	0.5	0	0
	LOWER ALTITUDE	Limni	A1	15	1180	80	500	-	37	0	2.7	2.3	0	3.0	17	0	3.9	3.5	0.8	0
		Latchi	A2	17	1200	30	450	-	21	1.2	4.7	3.8	0	0	43	0	1.3	0	0	0
		Nata	A3	17	2150	120	500	-	25	0.2	21	2.0	0	0	67	0	0.3	0.3	0	0
		Terra	A4	15	2100	350	600	-	22	0	0.3	8.8	3.3	0	34	0	4.6	16	8.0	0
		LOWER ALTITUDE ARABLE MEAN							28	0.4	3.9	4.2	0.9	0	40	0	2.5	5.0	2.2	0

Table 1 cont. Site descriptions for 38 transects in western Cyprus.

Land use	Site name	Code[b]	n[a]	Length	Altitude (m)	Rainfall (mm)	Status[c]	Land cover (%)											
								Natural vegetation						Planted vegetation					
								Non woody		Woody				Non woody		Woody			
								<1	>1	0–1	1–3	3–8	>8	<1	>1	0–1	1–3	3–8	>8
PERMANENT CROPS	Ghoudhi orchards	P1	17	830	60	500	-	21	0.3	1.4	1.0	0.4	0	12	0	14	32	10	0
	Avdimou carobs	P2	20	1060	170	500	-	43	0.1	20	9.1	0.9	0	24	0	2.2	9.1	4.6	0
	Neo Chorio groves	P3	27	940	220	550	-	80	0.1	6.2	5.9	1.0	0	5.5	0	6.5	10	6.5	0
	Arodhes vines	P4	27	1700	610	600	-	35	1.2	3.6	4.1	0.9	0	0.5	0	16	4.2	1.0	0
	Omodos vines	P5	20	990	730	700	-	51	2.1	7.9	5.5	2.7	0	0	0	18	4.5	2.5	0
	Ag. Nick upper vines	P6	27	1210	980	650	-	11	0	5.7	2.6	0.1	0	0	0	20	0.7	0	0
	PERMANENT CROPS MEAN							40	0.6	7.3	4.7	1.0	0	7.0	0	13	10	4.1	0
BUILT-UP	Polis town	B1	20	2100	30	450	-	8.8	0	0	0	0	0	3.3	0	6.1	12	6.3	0.1
	Paphos town	B2	20	2400	50	450	-	19	0.5	1.1	1.8	2.3	0	5.8	0	9.8	16	8.5	0.8
	KT village	B3	27	1720	470	600	-	36	0.8	2.5	2.5	0.5	0.3	3.3	0	11	19	9.4	0
	Salamiou village	B4	17	1150	660	650	-	20	0	1.0	1.3	0	0	3.3	0	6.8	19	10	0
	BUILT-UP MEAN							21	0.3	1.2	1.4	0.7	0.1	4.0	0	8.4	17	8.8	0.2

[a] number of counts per site

[b] site code as shown in Figure 1

[c] F = Forest Reserve, G = Game Reserve, S = Special Protection Areas

Table 2. Estimation of the breeding population of Cyprus Wheatears *Oenanthe cypriaca* in Paphos District. A 'round' is a complete set of counts of all sites. ESW = Estimated Strip Width (on either side of the transect line); LCL, UCL = Lower, Upper Confidence Limits (95%). The models for Distance estimates were all half-normal; n = total number of birds for which Distance estimates were made, including those from years before 2007, and from 2011. Because there were few birds in Grass/phrygana and Arable areas, the statistics for 'Total' were used.

		Area (km^2)[a] of land-use type	Number of rounds 2007–10	Length (km)	ESW (n = 648)	LCL	UCL	Total birds counted
Forest		328	10	11.28	14.3	11.7	17.6	114
Uncultivated		345	10	9.90	13.7	10.5	18.0	69
Grass/phrygana		475	8	6.05	23.0	17.3	30.6	20
Arable	Lowland	80	10	6.49	38.8	26.1	57.7	3
	Upland	21	8	2.90				0
Permanent Crops		107	8	6.41	37.9	31.1	46.2	47
Built-up		40	9	7.14	16.8	11.4	24.8	41
Total		1396	63	50.13	15.7	13.7	18.1	294

		Area surveyed (km^2)[b]		Density (birds km^{-2})[c]		Total Population[d]	
		LCL	UCL	LCL	UCL	LCL	UCL
Forest		2.64	3.97	28.72	43.18	9420	14 163
Uncultivated		2.08	3.56	19.38	33.17	6686	11 444
Grass/phrygana		1.67	2.96	6.76	11.98	3211	5691
Arable	Lowland	3.39	7.49	0.40	0.88	32	70
	Upland	-	-	-	-	0	0
Permanent Crops		3.19	4.74	9.92	14.73	1061	1576
Built-up		1.47	3.19	12.85	27.59	514	1116
TOTAL		-	-	-	-	20 924	34 060

[a] = from Pomeroy & Walsh (2006), with their 101 km^2 of arable divided into 80 for lowland (to 400 m) and 21 km^2 for upland (formerly grass/phrygana), this division being based upon field observation

[b] = total transect length × number of rounds × LCL/UCL [in km] × 2 [because LCL/UCL applies to both sides of the route]

[c] = number of birds counted/area surveyed

[d] = density × area of land use type

Special methods would have been required to estimate the populations of these species, and although these exist (*eg* De Laet *et al* 2011 for House Sparrows), we had insufficient time to apply them. Common and scientific names are from BirdLife International (2015) whilst scientific names of subspecies endemic to Cyprus are from Flint & Stuart (1992).

The data for the mapped species allowed population densities (numbers of birds km^{-1}) to be estimated by means of the computer program Distance (Thomas *et al* 2010). Here we use density estimates to calculate populations for the whole of PD—but already the method has been used for a whole country, the UK (Newson *et al* 2008). Analysis by Distance was done separately for each land-use type with 30 or more observations for the species concerned, and for all land-use types combined. Where the number of birds recorded from a particular land-use was less than 30, we used the confidence limits for the totals for that species (as in the last line of Table 3). Table 2 provides an example for a species with many observations, the Cyprus Wheatear, showing results for each land-use category. Distance makes a number of assumptions, of which two are particularly pertinent. Firstly, that all birds along the transect line are detected, which is likely to have been the case, except for some skulking species (such as Cyprus Warbler) in places with many shrubs next to the path. Secondly, that the transect line crosses the countryside in

Table 3. Summary of main overall results for 32 species with density and population estimates (A) and nine flocking and aerial species (B). In part A, populations are shown as lower and upper 95% confidence limits (LCL, UCL).

A: SPECIES WITH DENSITY AND POPULATION ESTIMATES

	Estimated population in Paphos District		Land-use type[a] with highest estimated population			Land-use[a] with highest mean density	Birds km^{-2}	European Trends[b]	SPEC[c]	Cyprus Trend[d]
	LCL	UCL		LCL	UCL					
Common Kestrel *Falco tinnunculus*	2310	3816	Grass/phrygana	1443	2381	Grass/phrygana	4.0	↓	3	Uncertain –ve
Black Francolin *Francolinus francolinus*	344	500	Low-mid alt arable	296	431	Low-mid alt arable	4.5	ND	3	Uncertain –ve
Common Woodpigeon *Columba palumbus*	11 689	20 104	Grass/phrygana	3544	4859	Low-mid alt arable	27.6	↑	Non	Uncertain –ve
Collared Dove *Streptopelia decaocta*	6123	9489	Built-up	5136	7434	Built-up	157.1	↑	Non	Uncertain +ve
Turtle Dove *Sreptopelia turtur*	1391	2629	Low-mid alt arable	608	1311	Low-mid alt arable	24.7	↓	3	Uncertain +ve
Great Spotted Cuckoo *Clamator glandarius*	1866	3028	Uncultivated	836	1411	Uncultivated	3.2	ND	Non	Uncertain –ve
Scops Owl *Otus scops*	156	598	Uncultivated	83	317	Uncultivated	0.6	ND	3	Uncertain +ve
Little Owl *Athene noctua*	1484	2772	Grass/phrygana	1268	2342	Grass/phrygana	3.8	ND	3	Uncertain –ve
European Hoopoe *Upupa epops*	241	730	Forest	178	594	Forest	1.2	-	3	Uncertain –ve
European Roller *Coracias garrulus*	2896	4734	Grass/phrygana	1577	2641	Low-mid alt arable	6.3	ND	2	Moderate decline*
Crested Lark *Galerida cristata*	33 948	56 515	Grass/phrygana	29 148	47 500	Grass/phrygana	80.7	?	3	Uncertain +ve
Winter Wren *Troglodytes troglodytes*	2396	4048	Forest	1411	2290	Forest	5.5	↑	Non	Uncertain +ve
Cyprus Wheatear *Oenantha cypriaca*	20 924	34 060	Forest	9420	14 163	Forest	36.0	ND	Non	Uncertain –ve
Cetti's Warbler *Cettia cetti*	23 195	37 947	Uncultivated	12 176	19 092	Low-mid alt arable	72.2	↑	Non	Uncertain +ve
Zitting Cisticola *Cisticola juncidis*	31 304	45 540	Grass/phrygana	15 160	23 750	Upland arable	166.8	↓	Non	Uncertain +ve
Olivaceous Warbler *Hippolais pallida*	26 230	41 042	Uncultivated	15 171	22 285	Permanent crops	54.6	ND	3	Moderate increase**
Sardinian Warbler *Sylvia melanocephala*	109 403	152 814	Uncultivated	57 266	72 159	Low-mid alt arable	215.2	-	Non	Strong increase*
Cyprus Warbler *Sylvia melanothorax*	22 126	34 564	Uncultivated	12 202	16 281	Uncultivated	41.3	ND	Non	Moderate decline*
Coal Tit *Periparus ater*	27 540	31 969	Forest	27 270	31 667	Forest	89.8	-	Non	Strong increase**
Great Tit *Parus major*	25 017	41 701	Permanent crops	8392	13 102	Permanent crops	100.9	↑	Non	Uncertain +ve
Short-toed Tree-creeper *Certhis brachydactyla*	974	1781	Forest	971	1781	Forest	4.2	↑	Non	Uncertain +ve
Masked Shrike *Lanius nubicus*	2772	6214	Forest	2718	5531	Forest	12.6	ND	2	Uncertain –ve

Table 3 cont. Summary of main overall results for 32 species with density and population estimates (A) and nine flocking and aerial species (B). In part A, populations are shown as lower and upper 95% confidence limits (LCL, UCL).

Eurasian Jay *Garrulus glandarius*	2172	3770	Forest	2172	3770	Forest	26.4	↑	Non	Moderate increase*
Black-billed Magpie *Pica pica*	16 106	21 907	Grass/phrygana	12 018	5733	Grass/phrygana	29.2	↓	Non	Steep decline*
Hooded Crow *Corvus corone*	1702	2855	Grass/phrygana	542	802	Built-up	15.8	-	Non	Uncertain –ve
Eurasian Chaffinch *Fringilla coelebs*	4002	5109	Forest	4002	5109	Forest	13.9	-	Non	Uncertain +ve
European Greenfinch *Carduelis chloris*	32 548	51 273	Grass/phrygana	10 086	13 634	Low-mid alt arable	63.6	-	Non	Uncertain –ve
European Goldfinch *Carduelis carduelis*	42 682	72 646	Uncultivated	13 261	22 531	Permanent crops	75.1	-	Non	Steep decline*
European Linnet *Carduelis cannabina*	33 200	53 552	Uncultivated	10 313	18 113	Permanent crops	133.1	↓	2	Uncertain +ve
Cretzschmar's Bunting *Emberiza caesia*	30 607	47 639	Forest	27 282	41 115	Forest	104.3	ND	Non	Uncertain –ve
Black-headed Bunting *Emberiza melanocephala*	3865	6276	Uncultivated	1946	3336	Permanent crops	15.5	?	2	Steep decline**
Corn Bunting *Miliaria calandra*	11 242	18 977	Grass/phrygana	9697	16 106	Upland arable	58.1	↓	2	Moderate increase*

B. FLOCKING and AERIAL SPECIES

	Land-use with highest number per 100 counts	European trends	SPEC	Cyprus trend
Chukar *Alectoris chukar*	Uncultivated	ND	3	Uncertain –ve
Feral Pigeon *Columba livia*	Built-up	-	Non	Strong increase **
Common Swift *Apus apus*	Built-up	-	Non	Uncertain –ve
Barn Swallow *Hirundo rustica*	Built-up	↓	3	Moderate decline**
Red-rumped Swallow *Hirundo daurica*	Permanent crops	ND	Non	Uncertain –ve
Northern House Martin *Delichon urbica*	Built-up	-	3	Strong increase **
Eurasian Jackdaw *Corvus monedula*	Low-mid alt arable	-	Non	Uncertain –ve
House Sparrow *Passer domesticus*	Built-up	-	3	Strong increase **
Spanish Sparrow *Passer hispaniolensis*	Low-mid alt arable	ND	Non	Steep deline*

[a] Land-use type as in Appendix 2. [b] From PECBMS (2012); ND = no data ↑ = moderate increase, ↓ = moderate decrease, - = stable

[c] From BirdLife International (2004): SPEC
1—Global concern 2—Concentrated in Europe, unfavourable status 3—Not concentrated in Europe, unfavourable status
4—Concentrated in Europe, favourable status Non —Not concentrated in Europe, favourable status

[d] Data are regression slopes, positive or negative; * = $P < 0.05$, ** = $P < 0.01$

a random way. For practical reasons most transect routes were on minor roads and paths so this assumption is less likely to hold. In some places, particularly those with vines or fruit trees, fields were separated by walls and hedges, sometimes with trees, and these also bordered the tracks. These provided good habitat for species such as warblers and Great Tits *Parus major*, which may thus have been over-estimated, although not greatly so because the small size of fields (some were less than 20 m across) meant that the roadside habitat was in fact found across the countryside in general. These sources of bias are less important for monitoring purposes, since the same route is followed every time, than for population estimates, where they need to be considered. Estimating distances to birds that were only heard was more difficult in denser habitats, such as permanent crops and some forest areas with shrubs. Such species will often have been under-estimated if the sounds were mainly calls and songs, for that meant that males were only recorded if singing or calling, and that females were rarely included. These species are indicated in Appendix 1 by a hash symbol. Birds overflying a site, especially if higher up (*eg* Common Woodpigeons *Columba palumbus* going to drink) were not counted, but flying birds using the habitat, such as hunting Rollers, or just flying a short distance, were included. In addition to the 32 species with Distance estimates, and the nine flocking and aerial species, a further 16 species were recorded in such low numbers that analyses were impracticable, but they are included in Appendix 1, where they are indicated with an asterisk.

For analysis of trends, our transect data were also combined with those from other sites, across the island, co-ordinated by BirdLife Cyprus, and analysed by the Pan-European Common Bird Monitoring Scheme (PECBMS), for the period 2006–2011 (*Trends* in Results below).

Vegetation cover and some other site attributes (such as the presence of walls, buildings and power lines) were recorded at ten random points along each transect. Vegetation was divided into native and planted, and sub-divided into woody and non-woody. The % cover was then estimated in up to four layers above the ground, namely 0–1, 1–3, 3–8 and >8 m; only the first two applied to non-woody vegetation, and only in forests were there a few trees exceeding 8 m in height. Per cent cover was estimated by eye for a circle of 10 m radius from the observer, excluding the track he was on. Each circle was divided into four imaginary sectors, and the cover estimated as 0, 5, 10, 15, 20 or 25% in each sector, giving a possible total of 100%. The data for the ten points were averaged, and the exercise repeated in another year to produce an overall average based upon 20 points, as shown in Table 1.

Each transect was selected as being representative of one of six land-use types as defined by the 1994 Census of Agriculture (see above), namely forest, uncultivated land, grass/phrygana, arable, permanent crops and built-up (see next section and Appendix 1 for details). Changes in area since 1994 are not thought to have been great (but see comments below under the various land-use categories). There are other classifications and data on land-use (*eg* Ministry of Agriculture, Natural Resources and Environment 2005) but they do not give information at District level. We did, however, split the 101 km^2 of arable land, as defined by the Ministry of Agriculture, into an estimated 20 km^2 in uplands, the remainder being at low–mid altitudes (mainly below 400 m). To some extent, the land-use types described here correspond to habitats (*eg* forest, built-up) but not always, as Fuller (2012 p7) has emphasised. Thus *eg* 'permanent crops' includes both orchards of citrus or olive, and vineyards.

Major land-use types

The various land-use types are not, of course, always clear-cut, but each of our transects was predominantly within one type. We use 'forest' for areas within forest reserves which are dominated by *Pinus brutia* with a notable under-storey of the endemic Golden Oak

Quercus alnifolia, especially at higher altitudes. Other species of smaller trees and shrubs occur mainly in valley bottoms and gullies. In most places the forest was quite open with a canopy cover of *c*30% (Table 1). The Cyprus Cedar *Cedrus brevifolia* now occurs naturally only in the Paphos forest reserve, though it did not feature in any of our survey plots. Many shrubs, notably various species of *Cistus*, such as *C. creticus* and other related species are very common (scientific names of plants in the present paper follow Blamey & Grey-Wilson 2008). Until recently, the Akamas forest reserve was heavily browsed, mainly by goats (Ioannou 2006). There are Mouflon *Ovis musimon* in and around the Paphos forest reserve in relatively small numbers, mainly in more open areas where they prefer to graze, but are unlikely to have much effect on bird populations.

Even within the forest reserves, some areas were much more open as with two of our transects that fall into the diverse category 'uncultivated', which also includes locally extensive areas of taller scrub types such as maquis (see below). Some smaller areas of abandoned cultivations, which were often terraced and retained some trees, especially almonds *Prunus dulcis*, are included in this category, and formed parts of three transects. Much of the uplands of PD are hilly and either covered with low grass and other plants, which we refer to as grass/phrygana and discuss below, or rather bushier machis vegetation, with mostly thorny sub-shrubs, and often rocky too. Larger shrubs, such as Juniper *Juniperus excelsa*, Thorny Broom *Calycotome villosa* and Thorny Gorse *Genista sphacelata*, together with occasional trees, mainly pines but often with oaks and other species in valleys, also occur, whilst smaller shrubs such as *Cistus* spp are widespread. Where the scattered trees are more common, the term mattoral could apply.

The third category is 'grass/phrygana'. This and the previous category are similar in being typical of higher land, especially the more hilly areas, and both having been grazed and browsed, mainly by sheep and goats, until the recent changes in favour of zero grazing (penning and stall feeding) for most livestock. *Phrygana* is the term used in the Balkans and eastern Mediterranean for garigue, a term more widely used in the western Mediterranean. Polunin & Walters (1985 p131) defined it as "more or less open shrub community, usually about 50 cm high, and rarely growing above 1 m. Consists of dwarf shrubs...often thorny...and often in clumps with a considerable amount of bare, stony ground." They distinguish it from maquis which is taller, and usually in wetter places, and which may include taller shrubs and trees such as broom, juniper and pines. They give details of a sub-type termed 'Eastern thorny garigue (phrygana)'. Although at first glance, this habitat appears to consist mainly of grass, closer inspection shows a wide range of other herbaceous plants, often spiny, and sometimes woody (Table 1).

These first three categories can all be considered as semi-natural; the plant species are almost all native, but the vegetation has been affected by several thousand years of burning, grazing and the removal of trees. In PD only about 7% of the land is devoted to annual crops. In the broader valleys, such as at Chrysochou and Nata, arable farming consists of relatively large fields, typically up to 5 ha, devoted to cereals and vegetables, often with fallow, and with relatively few walls and hedges. The adjacent field margins support strips of native plants, often including shrubs and small trees. In upland areas, fields have been created, or revived, in a number of relatively flat areas, usually within grass/phrygana habitats. Some fields are cut for hay. Transects in these areas necessarily included both forms of land-use, but each bird was noted as being in (or over) one or the other, and they were analysed separately. 'Permanent crops' were of two main categories: trees and vineyards. Trees were mainly olive *Olea europea*, carob *Ceratonia siliqua* and various citrus. The total area of permanent crops in PD has been declining for many years and is now only *c*8%. Almost all villages have a belt of tree crops, principally almonds, surrounding them. Carobs are becoming much less common than formerly, but more

land is being devoted to olives, for which there is a good market. Vineyards, mainly at higher altitudes, are also declining (Bruggerman *et al* 2011), but replanting with improved varieties has increased in recent years. Finally, 'built-up' areas were towns and villages, within which were often some almonds, olives or other trees (usually exotic, particularly species of *Eucalyptus*) and sometimes, as in Paphos, cultivated fields within the town.

RESULTS

Each of the six main land-use types has its characteristic bird communities, so these are considered first, before concluding with an overview of bird populations in PD as a whole. As can be seen from Table 1, the amounts of bare ground, non-woody and woody vegetation (both natural and planted) varied considerably between sites. The mean values for each main category of land-use show *eg* that canopy cover of forests was less than 30% for trees between 3 and 8 m tall, and that very few trees exceeded 8 m in height. There were no clear correlations with other variables recorded, such as the presence of walls.

Forests

Forests are special for several reasons, not least their environmental and economic aspects. The estimated forest cover of PD is 328 km^2, most of it being in Paphos forest reserve (which also extends into Lefkosia and Lemesos Districts), and the next most important, the Akamas forest reserve.

We recorded nearly a thousand birds of 29 species on the eight forest transects during the four survey years (Appendix 2). One transect was in the Akamas forest reserve, the others in Paphos FR, where they ranged from below 200 to over 1100 m asl, and totalled 11.28 km in length. A few bird species that might have been expected were not encountered, notably Bonelli's Eagle and Common Nightingale *Luscinia megarhynchos* which were observed outside of our counts. For 20 species there were sufficient data to undertake Distance analyses, and these gave a total density of *c*4.4 birds per ha, to which must be added a few aerial species (hirundines and Swift), and two flocking species of sparrows, so the total density probably approaches 5 birds ha^{-1}, a fairly low figure, perhaps related to the highly sclerophyllous nature of most of the vegetation.

The forest avifauna is unusual and special because five species (three in Appendix 2, plus Common Cuckoo *Cuculus canorus* and Eurasian Blackbird *Turdus merula*) were confined to forest sites, whilst a further five species were more common in forest than anywhere else. No other land-use type has 'unique' species, but on the other hand, there were also five species which occurred in every land-use category except forest. And amongst those species that do occur in forest, Coal Tit, Eurasian Jay and Eurasian Chaffinch *Fringilla coelebs* are notably absent from the Akamas FR. It seems likely that this is due to the forests on the Akamas peninsula having been long separated from Paphos FR, rather than being related to altitude, since all three occur down to at least 200 m (Chaffinch) or 100 m asl (the other two) in Paphos FR forest; most of the Akamas forest is above these altitudes.

Uncultivated land

There were nine transects in these important habitats, ranging in altitude from 50 m near Lara on the west coast, to nearly 1000 m asl above Ag Nicklaus in the east, and totalling 9.90 km in length. Although this habitat had less woody vegetation than the forests (Table 1), more bird species were recorded and the overall density of birds was the highest of the semi-natural habitats (Appendix 2). Of the species whose densities were estimated, eight had their highest populations in uncultivated areas, although only three had their highest densities there (Appendix 2).

Grass/phrygana

Three transects, at altitudes between 150 and 350 m asl, consisted only of this grass/phrygana habitat, but in four sites at higher altitudes, 520–610 m asl, parts had been cultivated for cereals or cut for hay in recent years particularly since 2010 when most livestock were kept penned rather than grazing the hillsides. Together, these transects had a total length of 6.05 km. All bird records were allocated to one or other of these two habitats as they were recorded. The agricultural parts (including hayfields) are considered in the next section.

Thirty species of birds were recorded as using this habitat, but at relatively low densities, perhaps because of the virtual absence of trees and the fact that much of the vegetation is spiny and tough. Nevertheless, ten species were estimated to have their highest populations in this, the most extensive habitat, which is important for that reason.

Arable

There are two broadly different types of arable land, at low–mid altitudes (up to *c*400 m), and at the higher altitudes described above. In the low–mid altitude areas, the principal crops were cereals and vegetables (mainly potatoes and cabbages) and some arable land was fallow in all years. We had four transects in each of the two categories, parts of the upland ones being grass/phrygana, which were counted separately, as described in the previous section. They totalled 6.49 and 2.90 km in length respectively. Upland arable sites had the fewest species (22) of any habitat, and their relatively small area was one reason for their not being very important for any particular species, although the Zitting Cisticola *Cisticola juncidis* reached its highest density there. If cultivation continues to expand in these upland areas, it will mainly be at the expense of the grass/phrygana habitat. Low–mid altitude arable areas were of considerable interest and importance, partly because agriculture was rarely intensive, often leaving quite wide field margins which supported significant amounts of native vegetation (Table 1). The presence of this cover, and the softer nature of crop plants, in comparison to those which are native, may be the main reasons for the high density of birds in these habitats—nearly double the average of that in the semi-natural habitats.

Permanent crops

We had three sites below 250 m in olive and carob groves, and a citrus orchard, and three above 600 m asl, all in vineyards; in total, these covered 6.41 km. There was only a small amount of native woody vegetation around permanent crops (Table 1), but the crops themselves supported a wide variety of species and at relatively high densities (Table 3, Appendix 2). For the Great Tit, the orchards were the habitat supporting the largest part of its population, and Greenfinches *Chloris chloris* and European Linnets *Carduelis cannabina* also had their highest densities in these habitats (Table 1).

Built-up areas

Transects were established in the two towns of PD, Paphos and Polis, and both were below 50 m, whilst the two villages selected from many, Kritou Terra and Salamiou, were at *c*470 and 660 m asl respectively. These four transects had a total length of 7.14 km. Villages are particularly important for Common Swifts *Apus apus*, Barn Swallows *Hirundo rustica*, House Martins and House Sparrows, as well as Feral Pigeons *Columba livia* and Collared Doves. Each uses a different element *eg* under the eaves of upper storeys on older stone and concrete buildings for House Martins (Walsh *et al* 2013). The swallow, martin and sparrow are all SPEC 3 species and, whilst all are numerous at present, may well decline as village houses and other buildings are renovated and modernised.

Flocking and aerial species

Although it was not considered practicable to estimate distances from the track to these species, they were nevertheless counted, and the results of this are summarised in Appendix 3. The range of numbers in these counts was considerable, and averages were therefore expressed as birds per one hundred counts to avoid too many decimal numbers at the lower end. It is not surprising that five of the nine species have their highest numbers in the villages and towns, because these are their main breeding sites, although they occupy a relatively small area of PD, so that their total populations would not be proportionately high.

Trends

Overall PECMBS (2012) found 19 species in Cyprus showing positive trends, and 22 declining (Table 3). However, only four of the positive trends and eight of the negative ones are statistically significant *eg* the Sardinian Warbler shows a 'moderate increase', whilst its congener the Cyprus Warbler has a 'moderate decrease', both $P<0.01$.

DISCUSSION

Birds are not only an important part of the natural environment, they are also widely considered to represent biodiversity as a whole (*eg* Bibby *et al* 2000, Furness & Greenwood 1993). A number of the species in this study are still abundant, contributing to ecosystem services and potentially to be 'green-listed', which IUCN is proposing as a category for species which are 'fully conserved' (Redford *et al* 2013). This is in line with other recent attempts to give more consideration to keeping common species common, rather than always worrying about those that are rare. Nevertheless, whilst some species are doing well, maintaining their numbers or even increasing, others are declining, three at least of them declining steeply (Table 3). This last group— Black-billed Magpie, Spanish Sparrow and Black-headed Bunting—are therefore of greatest conservation concern, and for these it is of particular importance to determine their requirements and to attempt to discover the causes of their decline. The magpie is currently numerous; however it is also the main host of the Great Spotted Cuckoo, which is already showing signs of a decline, although not yet statistically significant. Interestingly, in Cyprus and Israel (Yom-Tov *et al* 2012) the proportions of birds that are increasing (roughly half) are closely similar though the data for Israel are over a much longer period and involve more species. The situation in Turkey is causing much concern (Şekercioğlu *et al* 2011), primarily due to habitat loss particularly of the Mediterranean ecosystems.

BirdLife International (2004) published estimates for the breeding populations of birds in Europe, including Cyprus; but for the latter, with very few actual census data available, numbers given were very approximate. For that reason, and because here we are only concerned with PD, comparison with the earlier figures does not seem very helpful, as the following examples show. BLI gave the population of Coal Tits as 5 000–15 000 *pairs*, whereas we estimate 28 000–32 000 *birds* (to the nearest thousand) for PD alone. For Cyprus Wheatear BLI gives 90 000–180 000 *pairs* whilst we estimate for PD only 21 000–34 000 *birds*. It seems likely, therefore, that some earlier estimates were too high (*eg* Cyprus Wheatear) and others too low (*eg* Coal Tit).

Arable land in western Cyprus holds large populations of a wide range of species but when combined with other man-modified habitats, comprises less than 20% of the land area of PD. Agricultural land is an important Mediterranean landscape and needs to be included in conservation planning (Montana *et al* 2011). However, in Cyprus the more than 80% of semi-natural habitats are where most of the birds are, and consequently are

of greatest importance for conservation. Forests are the most important habitat of all, and they are currently well-managed from a conservation point-of-view. The more open lands (here referred to as uncultivated, grass and phrygana) together cover nearly 60% of PD, and they are undergoing several man-made changes in addition to the underlying trends in climate (higher temperatures, lower rainfall). These areas have been subject to grazing, browsing and fire for so long that, for most areas, it is hard to know what would happen if those actions stopped. And the recent trend of penning livestock for much of the year, allows grasses and other plants to grow, become rank, and potentially more combustible. The monitoring programme of BirdLife Cyprus should allow the impact of these changes on birds to be followed.

Pine forests in Cyprus support a wide variety of species, several of which are commoner at higher altitudes, and these are likely to be adversely affected by a warmer, drier climate. Under such conditions, they are likely to move to even higher altitudes, which of course are smaller in area and can thus only support smaller populations (Huntley 2007). Forests with a variety of other tree species would be expected to contain more bird species than pure pine forests, as has been found in Spain (Diaz 2006); and is probably the case in Cyprus. Natural pine forests also contain more bird species and at higher densities than the pine plantations which are common in the western Mediterranean (Diaz *et al* 1998). In the tropics, bird population densities in natural pine forests have been recorded as *c*10 birds ha^{-1} in the Bahamas (Emlen 1977), but only 2.6 in pine plantations in Uganda (Pomeroy & Dranzoa 1998). The creation of plantations of exotic pines on Cyprus would almost certainly have a negative effect on birds.

We have mentioned that one of the most important assumptions in Distance sampling was not followed closely. The presence of trackside walls and hedges in some sites will have inflated population estimates of some species, although not too seriously since many fields in Cyprus are small, less than 0.1 ha in size, and relatively few are more than 1.0 ha (and these have fewer hedges). The fact that our routes were not random lines is partly mitigated by *eg* their following contours and not being directed at places where most birds were expected. This gave them a measure of independence. Whilst these weaknesses make the estimation of actual numbers less accurate, they are not so serious for monitoring, where consistency between years is more important. That said, the overall bird population densities in Cyprus appear to be relatively low, particularly in the semi-natural habitats where many of the woody plants, from sub-shrubs to trees, are sclerophyllous, which as well as making them hard to eat also increases their resistance to fire. Our density estimates, ranging from 3.3–5.6 birds ha^{-1} for these habitats, do not include the aerial and flocking species, only a few of which were at all common (notably Jackdaws and House Sparrows in uncultivated, grass/phrygana and, for sparrows, built-up areas).

For the man-modified habitats, bird densities were higher, and we can make some comparisons with data from the UK (Newson *et al* 2005). Those authors give density estimates for 20 species which 'commonly use farmland'. In their table 5, farm 4 was described as 'tilled farmland' and the 20 species combined had a density of 2.4 birds ha^{-1}, compared to our low–mid altitude arable land estimate of 8.3; this surely reflects the generally much lower intensity of arable farming in western Cyprus compared to the UK. Two other comparisons can be made: Newson *et al*'s farm 5 included orchards, and had 3.6 birds ha^{-1}, whilst we had 6.7 for permanent crops, which also included orchards; and their estimates of 4.4 and 3.1 birds ha^{-1} for urban and suburban compare to our 3.4 for built-up areas, in all cases excluding House Sparrows which, in Cyprus, were numerous but for which, as explained above, we had no density estimate. The comparisons of density estimates are at best approximate, since the UK data were confined to the 20 common

farmland species and ours excluded aerial and flocking species. The pine forest data (both natural and plantations) are from the tropics, in warmer, wetter climates. Overall, it seems that landbird population densities in man-modified habitats in Cyprus are at least comparable to those elsewhere. If we use an overall density estimate of 5 birds ha^{-1} in PD, rather higher than the densities in the various habitats surveyed by Newson *et al* (2005) in the UK, there would be nearly 700 000 birds in PD (plus the waterbirds), considerably more birds than people. If one were to predict that the whole of Cyprus probably supports several million birds in the breeding season, this would be broadly similar to the numbers caught and eaten in Cyprus each year, although those are mostly passage migrants.

ACKNOWLEDGEMENTS

A number of people took part in the counts which form the basis of this paper, including Martin Hellicar and the late Martin Parker. We also thank Stuart Newson, Peter Flint and Martin Hellicar for their valuable comments on a draft of the paper. Phil Shaw drew the map and provided invaluable guidance on the use of the Distance software; the actual analyses were done by Lilian Twanza.

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Appendix 1. Notes on particular species.

Notes here include species whose numbers were too small for population estimates to be made; these are indicated by an asterisk. In addition, we have included species which were probably under-estimated, due to issues of detectabilty; these are marked # or ## in cases where the under-estimation is particularly likely to be large (see Methods section of text).

Eurasian Griffon* *Gyps fulvus*. Recorded several times near Salamiou, but not within counts.

Long-legged Buzzard* *Buteo rufinus*. Recorded twice, near Lemona and Salamiou.

Northern Harrier* *Circus cyaneus*. Occasional in upland grasslands, but not in counts.

Northern Goshawk*#** *Accipiter gentilis*. Occasionally heard calling in Paphos FR, mostly above Stavros-tis-Psokis.

Bonelli's Eagle* *Aquila fasciatus*. Although widespread, this eagle is sparse and was not seen during our counts. Its population on the nearby Pentadaktylos range was recently estimated as between 10 and 18 pairs, and its ecology was also reviewed (Beton *et al* 2013).

Peregrine Falcon* *Falco peregrinus*. Occasionally seen on the Akamas peninsula, usually near the coast.

Common Kestrel *F. tinnunculus*. A more detailed account of this species is given by Pomeroy & Walsh (2013) who show a steep decline in numbers, possibly due to hunters destroying their nests (Hadjisterkotis 2003).

Black Francolin# *Francolinus francolinus*. See Pomeroy (2014) for a detailed account of this species, which shows that known males were only recorded on one visit out of three; the birds were rarely seen. There is evidence of a recent decline in numbers, but see Hadjigerou *et al* (2004) for an estimate of far higher numbers.

Chukar *Alectoris chukar*. Later counts often included parties of recently-hatched young, and some larger groups were also found around Game and Fauna Service cages, where they were attracted by food put out for hatchlings. Management of the species is discussed by Panayides *et al* (2011).

Common Woodpigeon *Columba palumbus*. Most forest records were of distant birds heard, so populations there are likely to have been under-estimated.

Eurasian Collared-dove *Streptopelia decaocto*. This, like the Feral Pigeon, is largely a species of built-up areas, but is gradually becoming more common in the wider countryside (Walsh & Pomeroy 2012), particularly in arable areas.

European Turtle-dove# *S. turtur*. Records near the coast, especially in arable areas, may have referred to late migrants, but in most habitats, birds were regularly singing and therefore assumed to be preparing to breed.

Common Cuckoo*##** *Cuculus canorus*. Recorded at a Paphos FR site, several km west of Phini, in every year 2006–2011. In May 2008 a bird that flew out of a bush, closely followed by a Masked Shrike *Lanius nubicus*, was considered to be a probable young Cuckoo. Birds were also heard calling on several occasions at Phinokli.

Great Spotted Cuckoo *Clamator glandarius*. A parasite of various other birds, notably Magpies (Snow & Perrins 1998); as would be expected its population density is much lower (about a fifth) than its main host's.

Eurasian Scops#, Little Owl# *Otus scops*, *Athene noctua*. Because these small owls call mainly in the early part of the night and only occasionally during the day, estimates here are likely to be much too low (see also Pomeroy & Walsh 2013), but both species appear to be declining. Little Owls are often found as road kills (P Flint pers comm). The Scops Owl is an endemic subspecies *O. s. cyprius*.

Eurasian Nightjar*##** *Caprimulgus europaeus*. Heard on several occasions in Paphos FR at Yialia.

Alpine Swift* *Tachymarptis melba*. A few records, widely distributed.

European Roller *Coracias garrulus*. Has been studied in detail (Pomeroy *et al* 2013).

Eurasian Crag-martin* *Hirundo rupestris*. Recorded only at Stavros-tis-Psokis.

Northern House Martin *Delichon urbicum*. Population estimates in Walsh *et al* (2013).

Winter Wren# *Troglodytes troglodytes*. Vocal but rarely seen.

Cyprus Wheatear *Oenanthe cypriaca*. Recent papers include Randler *et al* (2010) and Flint (2011).

Eurasian Blackbird* *Turdus merula*. Recorded singing at a Paphos FR site, several km west of Phini, in each of three years.

Common Nightingale*# *Luscinia megarhynchos*. Occurred by a river amongst vines near Omodos and occasionally at several sites at higher altitudes in Paphos FR.

Zitting Cisticola *Cisticola juncidis*. Particularly numerous in arable land, at all altitudes (Appendix 2) but does occur occasionally in other habitats, such as old olive groves and waste land in urban areas.

Caspian Reed-warbler*# *Acrocephalus scirpaceus fuscus*. Singing birds noted in reed beds near Omodos, Nata and Polis.

Sardinian Warbler, **Cyprus Warbler** *Sylvia melanocephala, S. melanothorax*. These two species have received much recent attention, since the Sardinian is thought to be displacing its endemic congener (Pomeroy & Walsh 2002, Jones 2006, Flint & MacArthur 2014, Pomeroy *et al* in review). That view has been contested (Ieronymidou *et al* 2012). But whilst the Sardinian has been spreading, and increasing within its settled areas, the Cyprus Warbler in these same areas has been declining, although not elsewhere on the island.

Spotted Flycatcher* *Muscicapa striata*. Occasional in higher areas of forest, often near streams.

Coal Tit *Periparus ater*. This endemic subspecies, *P. a. cypriotes,* is almost confined to forest, down at least to 100 m; at higher altitudes it is very common and allows very close approach.

Great Tit *Parus major*. Widespread and especially numerous in orchards and olive groves.

Short-toed Treecreeper# *Certhia brachydactyla*. An endemic subspecies *C. b. dorotheae,* confined to forest.

Eurasian Golden Oriole* *Oriolus oriolus*. Present for several weeks in at least four years on the eastern side of Kritou Terra and suspected of breeding but not proved.

Woodchat Shrike* *Lanius senator*. Present in small numbers for several years to the west of Neo Chorio and may have bred there.

Masked Shrike# *Lanius nubicus*. Recorded in small numbers but perhaps under-recorded because it rarely sings and sits very still.

Eurasian Jay# *Garrulus glandarius*. An endemic subspecies *G p glaszneri*, occurs commonly in forest and not only in areas where oaks are common.

Black-billed Magpie *Pica pica*. A remarkable decline in recent years, perhaps due to shooting, of both birds and nests (Hadjisterkotis 2003) although still common particularly in open grasslands.

Spanish Sparrow *Passer hispaniolensis*. Declined steeply in western Cyprus.

Eurasian Chaffinch# *Fringilla coelebs*. In Cyprus this species is virtually confined to pine forests, where it is common, particularly at higher altitudes.

European Serin*# *Serinus serinus*. Occasional, usually in pairs, at several sites in Pafos FR mainly above 1000 m.

Appendix 2. Density data for all commoner species of birds, and for six land-use categories (with arable being divided into low–mid altitudes, and upland).

	FOREST			UNCULTIVATED			GRASS/PHRYGANA			LOW-MID-ALTITUDE ARABLE			UPLAND ARABLE			PERMANENT CROPS			BUILT-UP AREAS		
	Est. mean density (birds km^{-2})	LCL	UCL	Est. mean density (birds km^{-2})	LCL	UCL	Est. mean density (birds km^{-2})	LCL	UCL	Est. mean density (birds km^{-2})	LCL	UCL	Est. mean density (birds km^{-2})	LCL	UCL	Est. mean density (birds km^{-2})	LCL	UCL	Est. mean density (birds km^{-2})	LCL	UCL
Common Kestrel *Falco tinnunculus*				2.29	1.73	2.85	4.03	3.04	5.01	1.50	1.13	1.80	2.34	1.76	2.91	1.06	0.80	1.31	1.14	0.80	1.47
Black Francolin *Francolinus francolinus*										4.54	3.70	5.38	0.90	0.73	1.06	0.21	0.17	0.24			
Common Woodpigeon *Columba palumbus*	8.03	5.63	10.43	8.69	5.06	12.24	8.85	7.46	10.23	49.23	38.93	59.53	17.96	1.18	21.74	15.75	10.18	21.31	1.52	1.28	1.75
Collared Dove *Streptopelia decaocta*							0.66	0.54	0.77	10.17	5.67	14.66				3.70	2.58	4.82	157.12	128.39	188.85
Turtle Dove *Streptopelia turtur*	1.21	1.13	1.28	1.34	0.91	1.76				12.44	8.50	16.38				1.47	0.93	2.00			
Scops Owl *Otus scops*				0.58	0.21	0.92	0.34	0.14	0.54	0.13	0.05	0.20							0.12	0.0053	0.203
Little Owl *Athene noctua*							378	2.62	4.93	0.50	0.35	0.65				2.65	1.76	3.53			
Great Spotted Cuckoo *Clamator glandarius*				3.26	2.42	4.09	1.80	1.40	2.20	2.12	1.65	2.58	0.54	0.42	0.66	2.68	2.08	3.27			
European Hoopoe *Upupa epops*	1.18	0.54	1.81	0.22	0.14	0.29										0.21	0.13	0.28	0.08	0.053	0.113
European Roller *Coracias garrulus*				2.57	1.85	3.28	4.39	3.22	5.56	6.25	5.14	7.36	0.68	0.46	0.90	2.07	1.74	2.39	2.39	2.08	2.86
Crested Lark *Galerida cristata*				7.45	4.57	10.32	40.13	2941	50.85	40.13	29.41	50.85	55.13	41.37	68.88						
Cyprus Wheatear *Oenantha cypriaca*	35.95	28.72	43.18	26.28	19.38	33.17	9.37	6.76	11.98	0.64	0.40	0.88				12.33	9.92	14.73	20.22	12.85	27.59

Appendix 2 cont. Density data for all commoner species of birds, and for six land-use categories (with arable being divided into low–mid altitudes, and upland).

	FOREST			UNCULTIVATED			GRASS/PHRYGANA			LOW-MID-ALTITUDE ARABLE			UPLAND ARABLE			PERMANENT CROPS			BUILT-UP AREAS		
	Est. mean density (birds km^{-2})	LCL	UCL	Est. mean density (birds km^{-2})	LCL	UCL	Est. mean density (birds km^{-2})	LCL	UCL	Est. mean density (birds km^{-2})	LCL	UCL	Est. mean density (birds km^{-2})	LCL	UCL	Est. mean density (birds km^{-2})	LCL	UCL	Est. mean density (birds km^{-2})	LCL	UCL
Winter Wren *Troglodytes troglodytes*	5.04	4.30	6.78	2.82	2.02	3.61										3.75	2.70	4.79			
Cetti's Warbler *Cettia cetti*	8.09	6.22	9.95	44.32	35.29	53.34	7.26	4.52	10.00	72.70	53.95	90.44				24.34	20.47	28.21	11.39	8.13	14.64
Zitting Cisticola *Cisticola juncidis*				7.09	6.02	8.16	40.95	31.90	50.00	145.36	121.30	169.42	166.84	150.00	183.67	11.94	10.14	13.73	2.05	1.73	2.36
Olivaceous Warbler *Hippolais pallida*	14.71	11.79	17.62	54.28	43.97	64.59	3.93	2.60	51.26	27.04	22.39	31.69	2.61	2.16	3.05	54.63	37.61	71.65	4.50	3.70	5.29
Sardinian Warbler *Sylvia melanocephala*	35.48	27.60	43.36	187.58	165.99	209.16	55.56	40.21	70.90	215.15	189.90	240.40	4.60	4.07	5.13	92.66	73.55	111.76	28.67	20.72	36.61
Cyprus Warbler *Sylvia melanothorax*	9.51	7.67	11.34	41.28	35.37	47.19	7.83	4.98	10.68	7.66	4.46	10.85				62.52	44.64	80.39	0.46	0.40	0.53
Coal Tit *Periparus ater*	89.85	83.14	96.55	0.83	0.78	0.88	8.76	6.25	11.26												
Great Tit *Parus major*	7.09	6.01	8.16	28.35	19.72	36.98				59.01	44.81	73.21				100.44	78.43	122.45	40.68	32.41	48.95
Short-toed Tree-creeper *Certhia brachydactyla*	3.75	2.07	5.43																		
Masked Shrike *Lanius nubicus*	12.58	8.29	16.86	1.51	1.03	1.98															
Black-billed Magpie *Pica pica*				4.28	3.31	5.24	29.21	25.30	33.12	16.35	14.17	18.52	14.43	12.50	16.35	13.40	10.37	16.43	15.2	10.98	19.56

Appendix 2 cont. Density data for all commoner species of birds, and for six land-use categories (with arable being divided into low–mid altitudes, and upland).

	FOREST			UNCULTIVATED			GRASS/PHRYGANA			LOW-MID-ALTITUDE ARABLE			UPLAND ARABLE			PERMANENT CROPS			BUILT-UP AREAS		
	Est. mean density (birds km^{-2})	LCL	UCL	Est. mean density (birds km^{-2})	LCL	UCL	Est. mean density (birds km^{-2})	LCL	UCL	Est. mean density (birds km^{-2})	LCL	UCL	Est. mean density (birds km^{-2})	LCL	UCL	Est. mean density (birds km^{-2})	LCL	UCL	Est. mean density (birds km^{-2})	LCL	UCL
Eurasian Jay *Garrulus glandarius*	9.06	6.62	11.49																		
Eurasian Chaffinch *Fringilla coelebs*	13.89	12.20	15.58																		
Hooded Crow *Corvus corone*				0.70	0.56	0.83	1.42	1.14	1.69	4.58	2.68	6.48				3.47	2.80	4.14	15.79	11.33	20.25
European Greenfinch *Carduelis chloris*	31.32	23.45	39.19	29.46	20.85	38.06	24.97	21.23	28.70	63.56	54.60	72.52	3.45	2.63	4.26	28.15	20.20	36.09	3.46	24.83	48.08
European Goldfinch *Carduelis carduelis*	49.54	37.80	61.28	51.88	38.44	65.31	20.86	15.51	26.21	65.94	47.27	84.60	4.74	3.40	6.08	75.10	52.60	97.60	5.08	4.40	5.76
European Linnet *Carduelis cannabina*	0.94	0.79	1.08	41.20	29.89	52.50	0.4	0.28	0.68	17.78	12.42	22.93	32.31	19.16	45.45	133.13	100.00	166.25	1.65	1.39	1.90
Cretzschmar's Bunting *Emberiza caesia*	104.27	83.18	125.35	7.75	6.02	9.47										0.66	0.54	0.78			
Black-headed Bunting *Emberiza melanocephala*										5.93	4.94	6.92	3.34	2.26	0.42	1547	12.53	18.41			
Corn Bunting *Miliaria calandra*				1.37	0.87	1.86	27.17	20.42	33.91	3.32	2.36	4.28	58.09	41.32	74.85	2.35	1.75	2.94			
Total density	441.99			564.03			333.05			831.53			367.96			669.14			344.59		
Total mapped + aerial/flocking spp	19 + 7 spp			26 + 9 spp			22 + 8 spp			24 + 9 spp			15 + 7 spp			25 + 9 spp			18 + 8 spp		

Appendix 3. Counts of flocking and aerial species (see Methods for selection of species). Data are birds per 100 counts. The land-use with the highest count-rate is underlined.

Land use	Forest	Uncultivated	Grass/ phrygana	Arable Low-med	Arable Up	Permanent crops	Built-up
No of counts	80	90	56	40	32	48	36
Chukar *Alectoris chukar*	5.0	45.5	35.7	5.0	0	20.8	0
Feral Pigeon *Columba livia*	0	8.9	200.0	210.0	43.6	154.2	1750.0[a]
Swift *Apus apus*	2.5	8.9	8.9	102.5	0	29.2	419.4
Swallow *Hirundo rustica*	5.0	108.8	91.1	462.5	106.3	214.6	2571.9
Red-rumped Swallow *Hirundo daurica*	1.3	8.9	3.6	5.0	25.0	25.0	19.4
Northern House Martin *Delichon urbicum*	46.3	15.5	0	150.0	6.3	43.8	513.9
Eurasian Jackdaw *Corvus monedula*	0	25.5	253.6	352.5	156.3	89.6	4.2
House Sparrow *Passer domesticus*	3.8	85.5	155.4	742.5	93.8	473.8	6000.0[a]
Spanish Sparrow *Passer hispaniolensis*	31.3	36.6	33.9	52.5	21.9	39.6	4.2

[a] only one complete round of counts included these species, and numbers of House Sparrows were estimates rather than actual counts.

Appendix 4. Numbers of transect counts for each land-use type per year from 2006–2011[a]. The overall average was 2.00 counts per land-use type per year.

	2006	2007	2008	2009	2010	2011
Forest	2[b]	3	3	2	2	1[c]
Uncultivated	2	3	3	2	2	1
Grass/phrygana	2	3	2	1	3	1[d]
Arable – upland	2	3	2	2	2	2[f]
mid/low	2[e]	3	3	1	2	2
Permanent Crops	2	3	2	1	2	1
Built-up	2[g]	3	2	2	2	2[h]

[a] small number of Distance data from a few sites counted in 2003–2005 also included in the data-set.
[b] excluding Akamas Pines (see Table 1 for key to footnotes [b–h])
[c] excluding Yialia pines
[d] only Lara, Iria and Arodhes
[e] excluding Nata
[f] excluding Drinia and Phasli
[g] only Polis and Kritou Terra
[h] excluding Salamiou

New record of Red-necked Stint *Calidris ruficollis* for Iran

MEYSAM GHASEMI & ABOLGHASEM KHALEGHIZADEH

The Red-necked Stint *Calidris ruficollis* is a vagrant to the Middle East, recorded in Iran, Israel and United Arab Emirates (Porter & Aspinall 2010). The only record for Iran (Khaleghizadeh *et al* 2011, Mansoori 2008, Roselaar & Aliabadian 2009, Scott *et al* 1975, Zarudny 1911) was reported by Kirwan (2007), two specimens from Borujerd, Lorestan province, 25 July 1941 (Field Museum of Natural History, Chicago).

During a birdwatching trip 17 May 2012 by MG, a summer-plumaged Red-necked Stint was observed and photographed (Plates 1 & 2) on the Bandar Abbas coast, Hormozgan province, southern Iran (Dowlat park, 27° 11′ 12″ N, 56° 20′ 57″ E, Golshahr area of Bandar Abbas city). The bird had a rufous patch from chin to breast, white belly and undertail, with black legs and beak. It was feeding among Sanderlings *Calidris alba* and a few Little Stints *C. minuta* were also observed. The identification was confirmed using Porter & Aspinall (2010). The record was accepted by the Iranian bird records committee and is the second.

ACKNOWLEDGEMENTS

We thank Raffael Ayé, Abbas Ashoori, Ali Khani and Babak Musavi for help with the identification.

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Plates 1 & 2. A Red-necked Stint *Calidris ruficollis* Bandar Abbas, Iran, 17 May 2012. © *M Ghasemi*

Avian powerline mortalities, including Asian Houbaras *Chlamydotis macqueenii*, on the Central Asian flyway in Uzbekistan

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Avian mortalities from powerline collisions and electrocution are increasingly recognised as a significant problem for many different species (Bevanger 1998, Jenkins *et al* 2010, Martin & Shaw 2010, Loss *et al* 2014). Birds of prey and other thermal soarers are particularly vulnerable to electrocution (Janss 2000), whereas those susceptible to collisions are considered to have poor flying manoeuvrability due to high wing-loading, as in large waterfowl, cranes and bustards, with the latter two apparently finding lines hard to see owing to the position of their eyes and morphological constraints in the movement of the head (Bevanger 1998, Janss 2000, Martin & Shaw 2010, Rioux *et al* 2013). Rates of collision for Karoo *Heterotetrax vigorsii*, Kori *Ardeotis kori* and Ludwig's *Neotis ludwigii* Bustards in southern Africa have been estimated as 0.1–1.05 per km of surveyed powerline per year (Shaw 2013). Although such rates can seem low, when extrapolated across the vast distances powerlines can cover, the result can be a significant source of unnecessary anthropogenic mortality (Shaw 2013). Furthermore, shorter lengths of powerline placed in habitat with a high abundance of a vulnerable species can make a disproportionately large contribution to overall mortality, as seen in the Great Bustard *Otis tarda* population in easternmost Austria (Raab *et al* 2012).

Powerline extent and placement may combine to become especially acute along routes in which migrant birds concentrate for all or part of their journeys ('flyways'). The configuration of the Caspian sea in the west and the Pamir, Tien Shan and Hindu Kush ranges in the east has created such a flyway in Central Asia (aka Middle Asia), funnelling many populations of migrant birds through the deserts of southern Kazakhstan, Uzbekistan and Turkmenistan on their movements to and from their breeding and wintering ranges. The powerline issue has become increasingly focused in Kazakhstan, where the narrowest portion of the migration corridor begins to broaden, with several investigations reporting mortalities in as many as 37 species and electrocution rates as high as 7.6 birds/km of surveyed powerline in late summer (Lasch *et al* 2010, Pestov *et al* 2012, Voronova *et al* 2012). However, Uzbekistan and Turkmenistan have not been subject to formal study, even though they may be more important as they bestride the narrowest part of this flyway.

Our work in the flyway focuses on managing the globally Vulnerable Asian Houbara *Chlamydotis macqueenii* population that migrates to and breeds in the southern (Bukhara) sector of the Kyzylkum desert (*eg* Collar *et al* 2014, Koshkin *et al* 2014). The Bukhara district (Figure 1) represents about one sixth of the Kyzylkum desert contained within Uzbekistan, while as a whole Uzbekistan contains the southern half of the entire Kyzylkum desert with the north in Kazakhstan. It is predominantly a flat semi-desert consisting mainly of sparse shrub vegetation growing on consolidated and drifting sands and clay pans with variable gravel cover (Koshkin *et al* 2014). Our main aim in this pilot study was to establish whether powerlines were causing mortality to Asian Houbaras within the study area; however, we report on all mortalities found.

METHODS

A total of 240 km of powerlines, made up of 22 unique transects varying in length from 1–40 km, were surveyed by car between 29 March and 6 May 2014, covering the migration period for many species and the arrival and breeding period for the Asian Houbara, although probably too late to cover the main raptor migration period (pers obs). Vehicles with two observers drove under powerlines at no more than 20 km/h, with an observer scanning either side. Mortalities were observed either as carcasses or as bundles of feathers within the immediate area under and adjacent to the powerline. For each mortality, the GPS location and species was logged, along with (if possible) its sex, distance from pylon and scavenged status (no/yes/by what). Mortalities were collected to prevent double counting (two repeat transects were carried out 11 and 24 days after the first transect where mortalities occurred, but no further mortalities were found). It was not possible to age any dead birds. Causes of death were identified on the basis of circumstantial evidence. Electrocution—when bodies lay either below or close to the pylon (support structure), and the perpendicular distance from the powerline was small with no scatter of body feathers. Collision—when bodies lay at some point between the pylons and (due to momentum) had landed some metres beyond the powerline, with considerable loss of feathers. These interpretations can be confounded when scavengers move carcasses around.

Three types of powerline were encountered in the area: two types of high-voltage transmission line, with large metal pylons separated by a distance of 240 m and either three or six lines suspended between pylons (Plate 1a,b); and one type of low-voltage (6–10

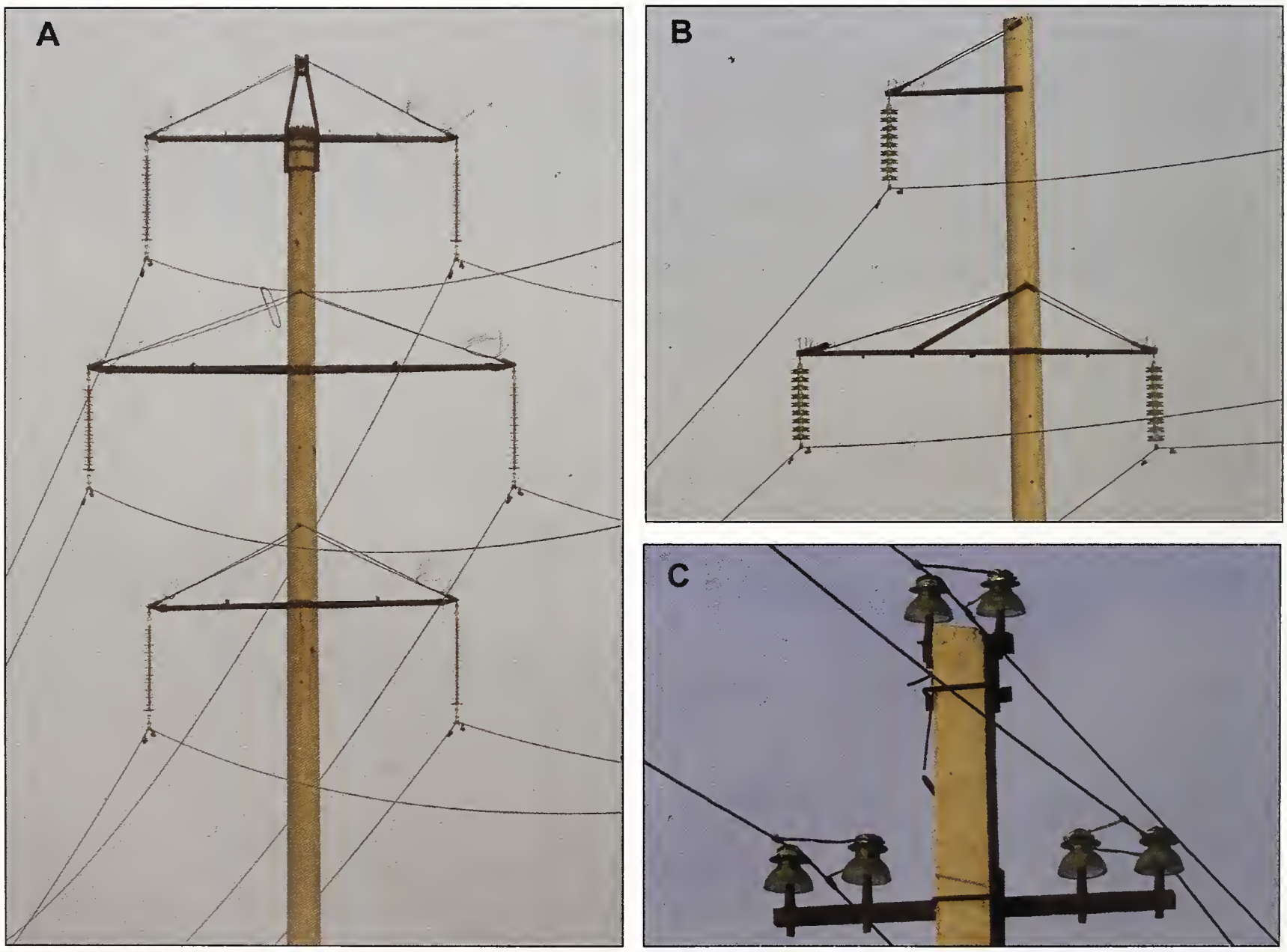

Plate 1. Powerline types surveyed in the Bukhara district, Uzbekistan: two types of high-voltage transmission line, suspension distance of 240 m (a,b); and low-voltage (6–10 kV) distribution line, suspension distance of 68 m (c). © *RJ Burnside*

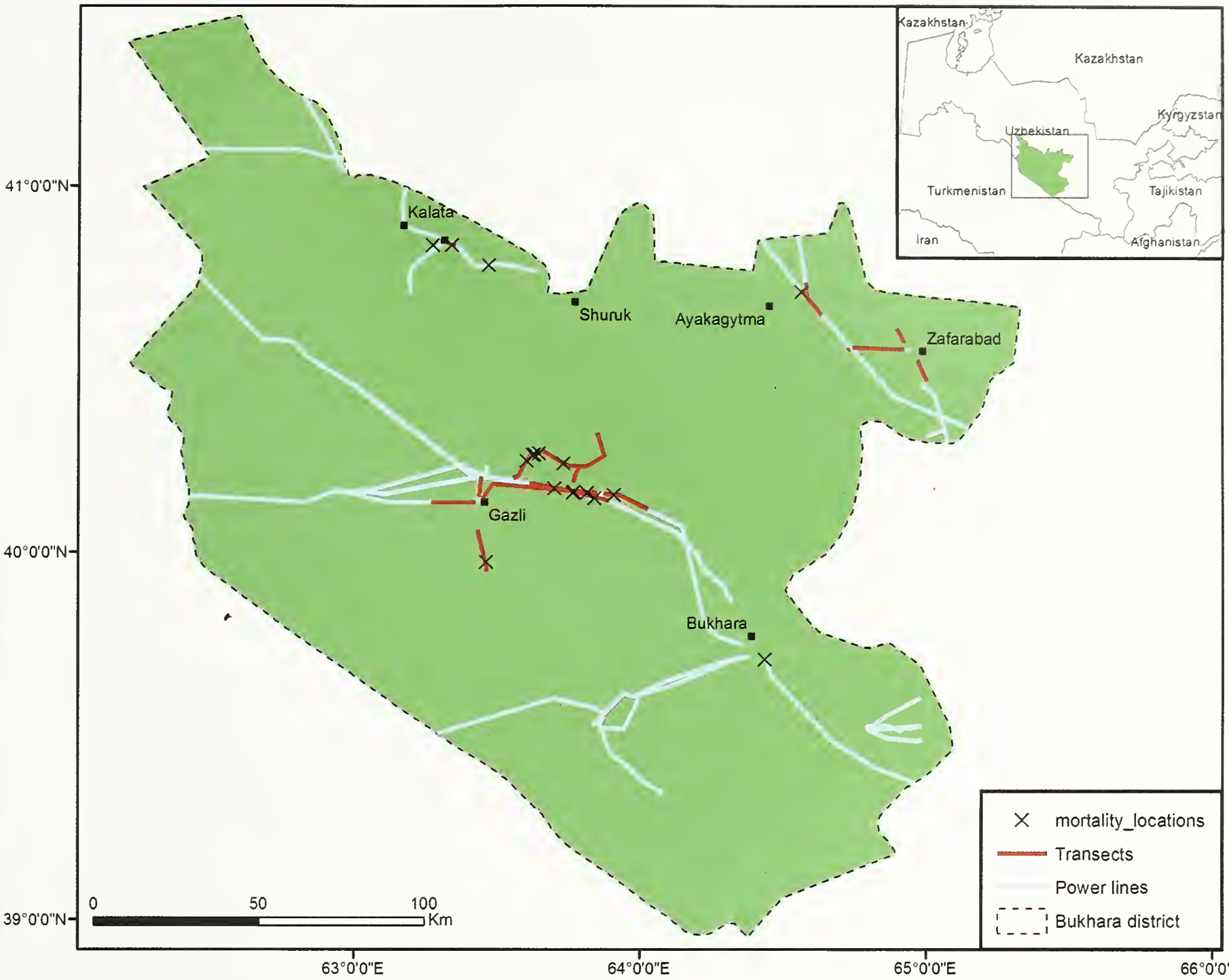

Figure 1. Map of study area showing digitised and field-recorded powerlines (blue lines, total length 1289 km) in Bukhara district, Uzbekistan. This is an incomplete coverage of powerlines, see methods. The location of powerline transects is overlaid in red and covers 240 km. Locations of mortalities are marked with x.

kV) distribution line, which had three lines closely suspended between pylons separated by 68 m. The latter type of distribution line was suspended on either wooden or concrete pylons with metal cross-arms and upright insulators (Plate 1c), of which the latter are considered to pose less risk of electrocution (Voronova *et al* 2012). We made a formal request for powerline infrastructure maps for Uzbekistan from the Uzbek authorities, but these are not publicly available. High-voltage lines are reported to cover 23 350 km in Uzbekistan (Newman & Nesbitt 2010) but we could find no reports for low-voltage lines. To estimate powerline coverage in Bukhara province, therefore, we digitised lines from Soviet-era topographic maps. However, besides being long out-of-date these maps were also missing smaller infrastructure. Nevertheless, using this resource (1097 km of powerlines digitised) and our opportunistic observations (192 km digitised) during other fieldwork, we mapped a total of 1289 km of powerlines (179 km of which are low-voltage distribution lines) and ran transects under 18.6% of them, sampling 114 km of the total low-voltage distribution lines (63.7%) and 126 km of the total high-voltage transmission lines (11.3%) (Figure 1).

The probability of finding a carcass under a powerline was calculated per 1 km length of transect using a generalised linear model (GLM) with a binomial error structure. We

treated each 1 km unit surveyed as a binomial trial and coded finding a carcass as 1 and no carcass as 0, thus giving the probability of finding a carcass per km and confidence intervals based on the binomial distribution (Aebischer 1999). We also report on powerline mortalities not recorded on transects but encountered opportunistically or as part of an existing Asian Houbara long-term monitoring programme using Microwave Telemetry PTTs, with 24 wild adults monitored between October 2011 and October 2014. When a PTT-bird mortality occurred in the Bukhara study area, the location was visited to retrieve the PTT and establish a cause of mortality; therefore mortality date and location were known. If the location of a mortality was within 20 m of a powerline it was deemed as a mortality by collision. For only wild adult Houbaras, the monthly risk of collision with a powerline during the breeding and post-breeding period spent in Uzbekistan (1 April–1 October) was estimated. For each individual, we considered the total cumulative number of days monitored during this period and, using a binomial GLM (described above), treated each day as a trial where a powerline collision was coded as 1 and no collision as 0, thereby giving a daily probability of colliding with a powerline while in Uzbekistan, which was then extrapolated to give a monthly estimate calculated as 1− ((1 − daily collision probability) ^{30}), and results are shown as percentages.

RESULTS

Nineteen avian mortalities were recorded involving 10 different species of predominantly large birds (Table 1). Fourteen mortalities were observed during transects (Table 1), giving a probability of finding one carcass in a 1 km section as 5.8% (95% CI 3.8–7.9%), although a seasonal rate of mortality cannot be estimated as the age could not be verified for most carcasses. In general, we concluded that the large raptors mostly died from electrocution, as many were found right under pylons of low-voltage distribution lines (Plate 2a), although some were farther away from the lines and might instead have been victims of collision (Plate 2b). The Asian Houbara remains observed during the transects under a high-voltage transmission line, being between pylons and away from the lines, were certainly the result of collision (Plate 2c, Table 1). Overall, mortalities of all species were distributed widely, although one 40 km stretch of distribution line yielded five mortalities (Figure 1). Opportunistic observation revealed an additional one Asian Houbara, one Steppe Eagle *Aquila nipalensis* and one Steppe Buzzard *Buteo buteo vulpinus* mortality on low-voltage transmission powerlines, while satellite PTTs disclosed two Asian Houbara mortalities, one wild adult female colliding with low-voltage distribution lines during post-breeding movements (Plate 2d) and one captive-bred female hitting a high-voltage transmission line during migration. Based on monitoring 24 wild adult Houbaras with a cumulative total of 5930 days monitored in Uzbekistan and one recorded powerline collision gives a monthly probability of hitting a powerline per individual of 0.51% ± 0.50% SE. Thus over the period 1 April–1 October, an individual had a 3.0% (95% CI: 0.0–9.0%) probability of powerline mortality. Houbaras seem relatively vulnerable to scavengers (usually confirmed as red fox *Vulpes vulpes*, by the presence of scats), as all evidence found consisted merely of remnants of feathers under the powerline, whereas eagle and buzzard carcasses were generally intact.

DISCUSSION

These results demonstrate that powerlines are a cause of mortality for several bird species in Uzbekistan. Quantifying how serious this mortality is will require considerably more work, but our provisional survey is likely to underestimate the true impact for several reasons. First and most importantly, disappearance of carcasses due to scavenging will negatively influence detection rates (*eg* Lehman *et al* 2007). Second, carcass detection will

Table 1. Powerline mortalities observed in the Bukhara district of Uzbekistan in spring 2014 from transects, PTT data and opportunistic observation. 'Powerline' denotes the type of powerline which caused the mortality: transmission line with three and six lines = TPL3 and TPL6; distribution line = DL. 'Method' denotes the method by which the mortality was observed: transect = T, satellite transmitter = PTT, opportunistic = O.

Date	Method	Powerline	Cause	Species
06/05/2014	T	TPL3	collision	Black-bellied Sandgrouse *Pterocles orientalis*
02/04/2014	T	DL	electrocution	Rough-legged Buzzard *Buteo lagopus*
10/04/2014	T	DL	electrocution	Rough-legged Buzzard *Buteo lagopus*
09/04/2014	T	TPL3	collision	Great Egret *Egretta alba*
03/04/2014	T	TPL3	electrocution	European Honey-buzzard *Pernis apivorus*
31/03/2014	T	TPL6	collision	Asian Houbara *Chlamydotis macqueenii*
31/03/2014	T	TPL3	uncertain	Common Kestrel *Falco tinnunculus*
10/04/2014	T	TPL3	collision	Common Quail *Coturnix coturnix*
13/04/2014	T	DL	electrocution	Steppe Buzzard *Buteo buteo vulpinus*
13/04/2014	T	DL	electrocution	Steppe Buzzard *Buteo buteo vulpinus*
02/04/2014	T	DL	electrocution	Steppe Eagle *Aquila nipalensis*
10/04/2014	T	DL	electrocution	Steppe Eagle *Aquila nipalensis*
10/04/2014	T	DL	uncertain	White-tailed Eagle *Haliaeetus albicilla*
10/04/2014	T	DL	electrocution	White-tailed Eagle *Haliaeetus albicilla*
30/12/2013	PTT	TPL6	collision	Asian Houbara *Chlamydotis macqueenii*
15/05/2014	PTT	DL	collision	Asian Houbara *Chlamydotis macqueenii*
12/06/2014	O	DL	collision	Asian Houbara *Chlamydotis macqueenii*
12/06/2014	O	DL	electrocution	Steppe Eagle *Aquila nipalensis*
12/06/2014	O	DL	electrocution	Steppe Buzzard *Buteo buteo vulpinus*

have been imperfect. Third, some birds are likely to have suffered injuries which allowed them to travel beyond the transect visibility width before killing them (Shaw 2013). Fourth, our transect selection may have missed clusters of mortalities such as observed along particular sections of powerlines in Kazakhstan (Lasch & Sadykulin 2012) where 300 birds along a single 100 km stretch have been reported (Moseikin 2003). It is highly likely that more bird species may also be affected. Currently, there is much uncertainty about the impact of powerlines in Uzbekistan (and the Central Asian flyway) owing to the unavailability of mapped powerline infrastructure and no large-scale multi-season studies incorporating scavenging experiments to adjust mortality estimates. However, in the first instance we can suggest that mortality occurs during both autumn and spring passage (losses in autumn may be higher owing to the presence and naivety of the summer's offspring). Further, several of the species susceptible to mortality are long-lived with low reproductive output. Given this, numbers of mortalities do not need to be high to have a detrimental effect on population stability when a species' demography is sensitive to small changes in adult survival (Combreau *et al* 2001).

Importantly we found that Asian Houbaras were susceptible to collision with both high- and low-voltage powerlines and that the monthly probability of an adult colliding with a powerline was non-trivial, with the possibility of 30 out of every 1000 individuals perishing in this way per season in Uzbekistan. The current male population in the study site is estimated around 2000 (MK unpublished data) which when extrapolated to include

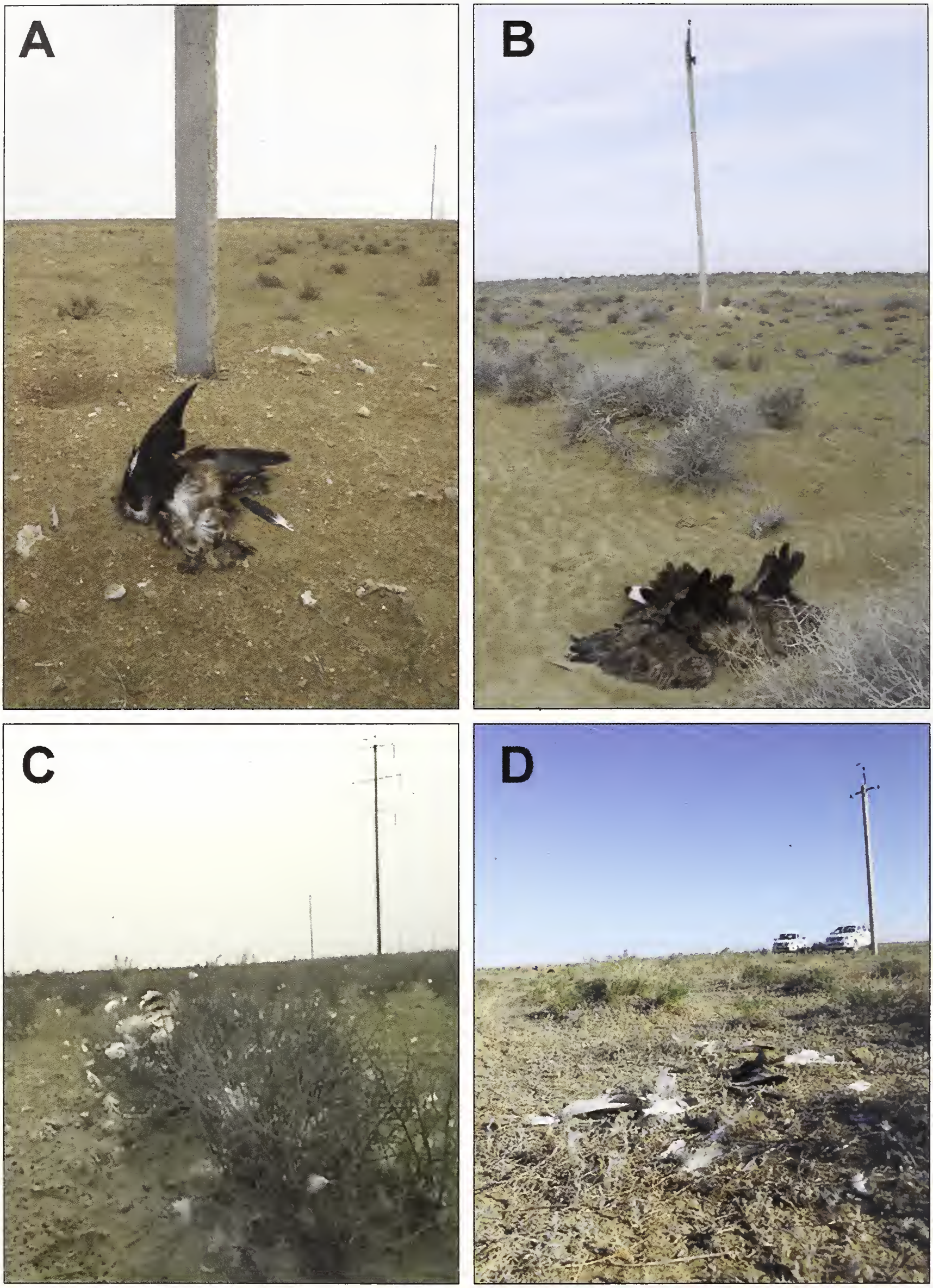

Plate 2. Powerline mortality photos Bukhara district, Uzbekistan: (a) Steppe Buzzard *Buteo buteo vulpinus* electrocuted on a low-voltage distribution line, 10 April 2014 (© *JM Herrero*); (b) White-tailed Eagle *Haliaeetus albicilla* killed on distribution lines but uncertain if by electrocution or collision, 10 April 2014 (© *JM Herrero*); (c) Feather remains caught in a shrub of an Asian Houbara *Chlamydotis macqueenii* killed by collision on high-voltage powerlines, 2 April 2014 (© *RJ Burnside*); (d) Feather remains of an Asian Houbara *Chlamydotis macqueenii* monitored with a satellite transmitter and killed by collision with low-voltage distribution lines, 15 May 2014 (© *RJ Burnside*).

females if the sex ratio was 1:1 (Combreau *et al* 2002) would give a total population of 4000, resulting in 120 birds lost/year (95% CI: 0–350 birds). Powerline collisions caused the deaths of at least three adult birds in the 2014 breeding season, and at least during the April–May fieldwork this was the only confirmed source of adult mortality in our study area over two consecutive years, although other sources of mortality like poaching and hunting occur in autumn (unpublished data). After hunting and poaching, therefore, powerlines are likely to be an important additional cause of mortality in the Asian Houbara. However, identifying causes of mortality is complicated because most mortalities for this species are likely to go unnoticed owing to an apparent high rate of scavenging in our study area, based on visitation of remains within three days of mortality of satellite tracked Houbaras.

None of the species recorded, with the exception of the Asian Houbara, is categorised as threatened under IUCN criteria. However, with continuing expansion of powerline infrastructure in Uzbekistan (Newman & Nesbitt 2010) and neighbouring countries, the risks to birds migrating through Central Asia are set to increase unless (1) the appropriate assessments of risks posed by powerlines when planning their placement are made, (2) the use of appropriately designed powerlines that mitigate the risk of electrocution/collision becomes mandatory (this would be beneficial to energy companies as it reduces the risk of damage to lines and blackouts) and (3) existing lines running through important habitats are fitted with the appropriate insulation and bird flight deflectors.

ACKNOWLEDGEMENTS

Robert Burnside and Maxim Koshkin are funded by the Ahmed bin Zayed Charitable Foundation. We are grateful to the Emirates Bird Breeding Center for Conservation for their support in Uzbekistan. Field assistants Judit Mateo-Herrero and Lizzie Grayshon as well as Erasil Khaitov helped in surveys and mapping parts of the distribution lines. Steffen Oppel made useful comments during review. Research was carried out with permission granted by Gosbiokontrol, Uzbekistan.

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Red-backed Shrikes *Lanius collurio*: first record(s) for Afghanistan

MARK MALLALIEU & PETER KAESTNER

During a 12 month posting in Mazar-e-Sharif, Balkh province, northern Afghanistan, 29 May 2013–22 May 2014, PK carried out regular observations of birds, especially on the military base adjacent to the international airport. On 21 November 2013, he photographed a shrike perched on razor wire (Plate 1) at the far southwest corner of the perimeter fence of the base, at a distance of over 50 m. Although the photo is of poor quality, a combination of plumage features and structure suggest that the bird is an adult male Red-backed Shrike *Lanius collurio*. It has a grey crown and nape, extending slightly onto the mantle, the rest of which appears chestnut. The flight feathers appear dark, the exact colour being impossible to determine. From the photo it is hard to make out the colour of the wing coverts but they appear chestnut like the mantle. No white patch is visible at the primary bases though a piece of wire could be hiding any such markings. There is a prominent black band from the base of the bill to the rear of the head, with a white throat and sides to the head. The rest of the underparts are pale peach in colour, though the undertail-coverts appear whitish. Most of the uppertail looks black but a white edge to the proximal half is visible. The rump looks pale grey. In structure and posture, it is a typical shrike. The only confusion species are male Turkestan Shrike *L. phoenicuroides* and Bay-backed Shrike *L. vittatus*. Male Turkestan Shrike would show a rufous crown fringed below by white, a greyish-brown mantle, a rufous tail and a white patch at the base of the primaries. In Bay-backed Shrike the black band would extend well over the forehead, the upperparts would be darker chestnut and the underparts would be whiter with rusty flanks. Even taking into account the wire, some of the large white bases to the primaries would be visible.

The possibility of hybrid origin also needs to be considered (Worfolk 2000). T Worfolk *in litt* considered that this could not be ruled out and commented that "The black mask doesn't appear to extend at all onto the forehead, which is odd for Red-backed and the mantle colour appears a little darker, duller and less rufous than normal (of course this could be a result of the light or photographic settings). I'd also like a better view of the tail. It may well have been a perfectly normal *collurio* but, given the alarming number and variety of hybrids recorded in the Middle East, I'd rather be overcautious." We agree that the quality of the photo is less than ideal for a first record, but consider that the sighting merits consideration as the first record of Red-backed Shrike for Afghanistan.

Plate 1. Adult male Red-backed Shrike *Lanius collurio*, Mazar-e-Sharif, Afghanistan, 21 November 2013. © *Peter Kaestner*

On 22 August 2014, MM photographed an adult male Red-backed Shrike in a garden in central Kabul (Plates 2 & 3). In these photographs the chestnut wing coverts, chestnut fringing to tertials, primaries and secondaries are all visible, helping to rule out Bay-backed Shrike. There is a very small white spot at the base of the primaries, which is shown by some Red-backed Shrikes (Ayé *et al* 2012). The bird appeared smaller and markedly shorter

Plate 2 (left). Adult male Red-backed Shrike *Lanius collurio*, Kabul, Afghanistan, 22 August 2014. © *Mark Mallalieu*

Plate 3 (right). Adult male Red-backed Shrike *Lanius collurio*, Kabul, Afghanistan, 22 August 2014. © *Mark Mallalieu*

tailed than Long-tailed Shrike *L. schach,* which is relatively common in Kabul on spring passage and in summer (MM pers obs). Worfolk *in litt* considered that this individual showed "no obvious signs of hybrid origin...a perfect black and white *collurio* tail, an extremely strong point in favour of a 'pure' Red-backed rather than a hybrid. The white primary patch appear to be quite common on eastern...Red-backed." This individual was observed to catch a wasp *Vespa* sp.

The occurrence of Red-backed Shrike in Afghanistan is unsurprising. *Lanius collurio pallidifrons* breeds in central Siberia (Worfolk 2000) and autumn migrants occur in Pakistan and northwest India (Rasmussen & Anderton 2012). The bird in Mazar-e-Sharif was seen on an apparently late date given that the main passage period in Sudan is late August–early October (Cramp 1993). However, autumn passage through Oman is late August–late November (Sergeant *et al* 2008) making the date of the Mazar-e-Sharif bird slightly less surprising. We can find no published records of this species for Afghanistan. None are cited by Rasmussen & Anderton (2012) and UNEP (2008) did not include the species in its bird list.

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Colour aberration in Horned Larks *Eremophila alpestris albigula* observed in Kyrgyzstan

ROLF NESSING

On 8 September 2014, on the southern shore of Chatyr-Kul lake, Naryn province, Kyrgyzstan, a flock of some 3000 Horned Larks *Eremophila alpestris albigula* was seen. Amongst the flock were three colour-aberrant Horned Larks, one of which was photographed (Plate 1). The following day, on the eastern shore of the lake (40° 40.623′ N, 075° 24.240′ E), to the north of the Torugart border crossing in the Torugart-Ashuu pass and at an elevation of *c*3541 m AMSL, a further leucistic individual was sighted in a flock of some 20 Horned Larks. Altogether *c*3300 Horned Larks were counted around the lake.

Hein van Grouw (*in litt*, see also van Grouw 2010, 2013) on inspection of Plate 1 considered the bird most likely exhibited a form of progressive greying. In Pätzold's (1987) species monograph of the Horned Lark, no mention is made of colour anomalies.

ACKNOWLEDGEMENTS

I would like to thank my friends Askar T Davletbakov (Bishkek), Zairbek Kubanychbekov (Bishkek) and Maksatbek Anarbaev (Bishkek and Berlin) for their active support during the planning and conduct of our joint excursions. Hein van Grouw's correspondence was invaluable.

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Plate 1. Horned Lark *Eremophila alpestris* with colour aberration, 8 September 2014, lake Chatyr-Kul, Kyrgyzstan. © *Rolf Nessing*

First records of Asian Buff-bellied Pipit *Anthus (rubescens) japonicus* in Azerbaijan

MICHAEL HEISS

The Asian Buff-bellied Pipit *Anthus (rubescens) japonicus* is a breeding bird in northeastern Asia and winters in southern Asia (Alström & Mild 2003). Within the OSME region it is regularly recorded in Israel (Shirihai 1996). Pedersen & Aspinall (2010) listed 18 records for the United Arab Emirates. It has been observed as a vagrant elsewhere in the Middle East, *eg* Jordan, Kuwait, Oman, Qatar, Syria (Porter & Aspinall 2010), Iran (Scott & Adhami 2006, Khaleghizadeh *et al* 2011) and Turkey (Atahan & Atahan 2009). The first record for Cyprus was two or three individuals in March 2013 (J Honold pers comm) and the first three individuals for Georgia were recorded in January 2014 (P Adriaens pers comm). The present account describes the first records for Azerbaijan.

VISUAL DETECTIONS

The first Buff-bellied Pipits in Azerbaijan were observed 1 November 2008 when a group of German ornithologists visited Gizil Agach bay. They observed a flock of pipits close to Narimanabad village. Among the pipits they identified six Asian Buff-bellied Pipits (K Gauger pers comm). Some record photographs were taken which confirmed the identification (Plate 1). On 29 October 2011 a resting individual was watched at a coastal lagoon near the Besh Barmag migration bottleneck (40° 59′ N, 49° 13′ E) and a few record shots were taken (K Gauger pers comm, Plate 2). Asian Buff-bellied Pipits appear similar to the Water Pipit *Anthus spinoletta coutellii*, which is a common breeder in mountainous

Plate 1 (left). An Asian Buff-bellied Pipit *Anthus (rubescens) japonicus* 1 November 2008, Gizil Agach bay, Azerbaijan. © *Kai Gauger.* It is distinguishable from the similar Meadow *A. pratensis* and Water Pipits *A. spinoletta coutellii* by the pale loral stripe and the distinct dark patch on the throat side. The mantle is poorly streaked and brownish-grey.

Plate 2 (right). Second record of Asian Buff-bellied Pipit *Anthus (rubescens) japonicus* in Azerbaijan, Caspian sea coast near Besh Barmag, 29 October 2011. © *Kai Gauger.* The typical dark patch on the throat side and pale lore are well visible in this photograph and also the whitish wing-bars. Note also the pale legs.

Plate 3 (top left). Asian Buff-bellied Pipit *Anthus (rubescens) japonicus* in breeding plumage 2 April 2012, Caspian sea coast near Besh Barmag, Azerbaijan. © *Michael Heiss*. Note the distinct malar stripe and the strong black streaks on breast and flanks. These strong streaks do not occur in the breeding plumage of any Water Pipit *A. spinoletta* subspecies. Due to the angle the usually pale lore looks dark, but is better visible in Plate 5. Plates 3–5 are of the same individual.

Plate 4 (top right). Asian Buff-bellied Pipit *Anthus (rubescens) japonicus* in breeding plumage 2 April 2012, Caspian sea coast near Besh Barmag, Azerbaijan. © *Michael Heiss*. Note the pale legs, which are usually dark in most Water Pipits. Furthermore, the hue of the buffish underparts are more orange than pinkish as in Water pipit breeding plumage.

Plate 5 (right). Asian Buff-bellied Pipit *Anthus (rubescens) japonicus* in breeding plumage 2 April 2012, Caspian sea coast near Besh Barmag, Azerbaijan. © *Michael Heiss*. Meadow Pipit *A. pratensis* can be ruled out by the greyish crown and only faint streaks on the mantle.

habitats of the Caucasus and commonly seen outside the breeding period there in lowland and coastal regions (Patrikeev 2004, own obs). Asian Buff-bellied Pipits can be easily separated. At distance a peculiar dark patch on the throat side and poorly-streaked brownish-grey mantle is seen. Closer, the pale lore becomes visible (Plates 1 & 2). Another characteristic to consider for the separation of Asian Buff-bellied Pipit from Water Pipit *A. spinoletta coutellii* is the pale legs though the leg colour of *coutellii* can sometimes be pale (Alström & Mild 2003). The call is distinct from that of the Water Pipit (noted for the first record).

During a bird migration study at the Besh Barmag site in autumn 2011 and spring 2012 (Heiss 2013), I observed a migrating unusual-calling pipit on 17 November 2011. The pipit was not visually identifiable in flight, but the uttered calls were recorded by an automated sound recorder (see below) and later identified as calls of Asian Buff-bellied Pipit (Figure 1, Magnus Robb pers comm). On 12 March 2012 a migrating individual was watched and

identified by its distinct calls with which I was by then familiar. This record was not documented by photos or sound recordings. On 2 April 2012 an Asian Buff-bellied Pipit was observed in breeding plumage resting on the ground (Plates 3–5).

In January 2015 a two-week field trip produced two further records. On 16 January 2015 I observed a calling individual, which was among *c*80 Meadow *Anthus pratensis* and Water Pipits (*coutellii*) that had arrived for roosting in several small flocks at 'Flamingo lake' in Shirvan national park (39° 40′ N, 49° 11′ E). Though no photos or sound recordings were obtained the bird uttered the typical flight calls three times therefore securely excluding Meadow and *coutellii* Water Pipits. The second bird was sound recorded at Gizil Agach bay on 18 January 2015 by Lukas Pelikan (recording at www.xeno-canto.org/212144) and the identification confirmed (M Robb pers comm). These seven records, involving 12 individuals, are the only direct observations so far of Asian Buff-bellied Pipit in Azerbaijan.

AUDITORY DETECTIONS

Further records come from the automated sound recorder, used with an omnidirectional microphone (SM2 Recorder, SMX-NFC Acoustic Night Flight Call Microphone, Wildlife Acoustics Inc), and operated continuously parallel to the visual observations during the autumn 2011/spring 2012 bird migration study (Heiss 2013). That autumn I recorded 1227 h, 2 August–17 November 2011, at the observation point. In the spring, I recorded 1276 h, 1 March–29 May 2012, at the same observation point. In addition, I recorded 2048 h in spring 2012 about 500 m north of the previous observation point, at a coastal lagoon. This second device (SM2 Recorder with a SMX-II microphone, Wildlife Acoustics Inc) recorded in parallel to that at the first observation point and was far away enough to not record the same birds at the same time. However, no Asian Buff-bellied Pipit calls were detected using the second device. The total of 4551 recording hours (*c*60% day and *c*40% night recordings) at the first site, was then analysed with the aid of time-saving call recognition software (Songscope version 4.1.3A, Wildlife Acoustics Inc). This recognition software is based on Hidden Markov models that consider spectral and temporal characteristics of the vocalisations, with a certain amount of variability across the training data (Agranat 2007). This training data, which consists of several known Asian Buff-bellied Pipit calls, is necessary to 'teach' the software the vocalisations of interest. Here, I used securely identified Asian Buff-bellied Pipit calls directly from my own sound recordings, especially those calls from the previously mentioned flyby on 17 November 2011. With this training data the software generates a 'recogniser' that automatically scans the recorded sound files to find the desired vocalisations. After the scanning process the software produces a list of possible Asian Buff-bellied Pipits calls. Most of these possible calls were 'false

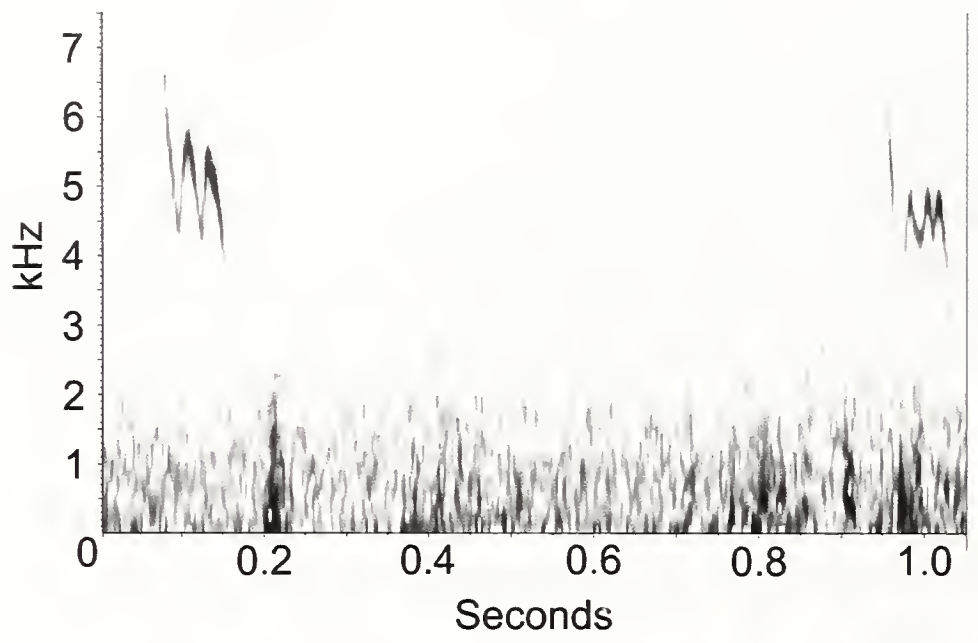

Figure 1. Calls of an Asian Buff-bellied Pipit *Anthus* (*rubescens*) *japonicus* 17 November 2011, Caspian sea coast near Besh Barmag, Azerbaijan. © *Michael Heiss*. These flight calls sound different to those of Water Pipits *A. spinoletta coutellii* but quite similar to some Meadow Pipit *A. pratensis* call-types and can be described as a squeaky, descending 'tsipp', often as a higher and subsequent lower pitched double call.

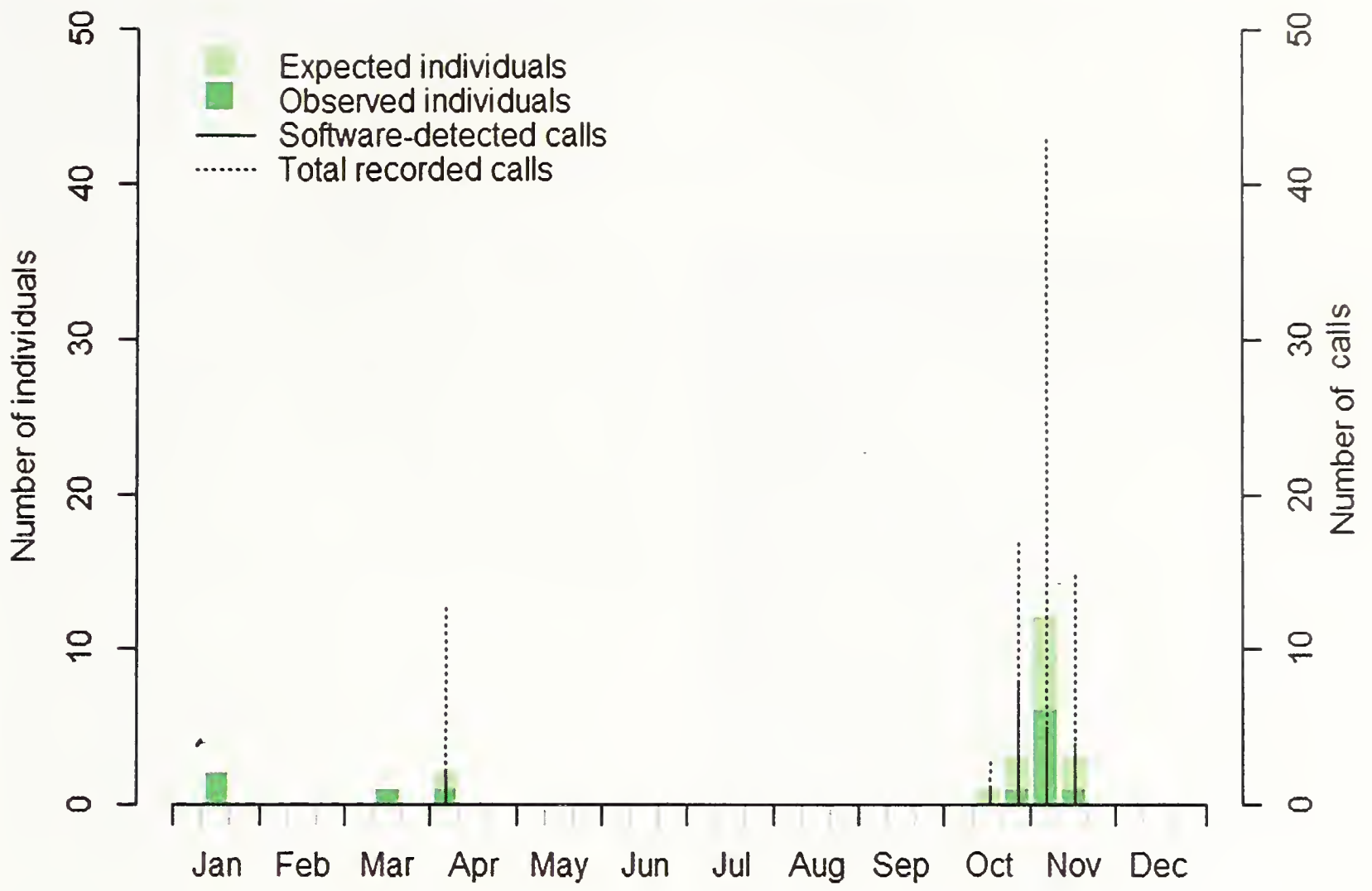

Figure 2. Phenology of all records of Asian Buff-bellied Pipits *Anthus* (*rubescens*) *japonicus* in Azerbaijan (this paper). The 'expected individuals' are those which have not been observed visually but detected by the software. One 'expected individual' usually uttered a series of calls during a flyby. As the software was not capable of detecting all calls the call series was manually checked afterwards around the software-detected calls.

positives' *ie* calls of other bird species that sound similar to those of Asian Buff-bellied Pipit or other environmental noise. Therefore, it is necessary to check manually the output of the scanning process to find the true Asian Buff-bellied Pipit calls ('positive positives').

In total, the software analysis and the subsequent manual checking found 20 positive call detections for 9 occasions. Each occasion is regarded as an overflying calling individual. One of the occasions was the observed bird from 17 November 2011 and thus only 8 individuals were overlooked in the field. Furthermore, I checked the recordings before and after each occasion for additional calls, not detected by the software, and I found 42 undetected calls. Those have rather weak signals from distant calling individuals and each occasion consisted mostly of a series of calls from overflying individuals with poorly detectable distant calls and well detectable close calls. For these nine occasions 41 ± 9 % of the total recorded calls could be found by the software. This low rate suggests that it is highly likely that further undetected calls exist on the recordings. A sample file from 4 November 2011 that was manually analysed by M Robb supports this assumption. He found an additional four occasions of overflying individuals with 29 undetected calls on that day. The software analysis of the sound recordings produced, in addition to the visual observations, 12 records with 20 call detections and an additional 71 undetected calls (including the findings of M Robb), *ie* that 19 records of 24 individuals exist for Azerbaijan in total (Figure 2).

DISCUSSION

Two further subspecies of Water Pipit need to be taken into consideration: *Anthus spinoletta spinoletta* and *A. s. blakistoni*. These two subspecies have not been recorded in Azerbaijan (Patrikeev 2004), but their breeding range is closer to Azerbaijan than that of Asian

Buff-bellied Pipit (Alström & Mild 2003). Acoustically, calls of *spinoletta* and *blakistoni* sound similar to *coutellii*, but all three Water Pipit subspecies sound different to calls of the Asian Buff-bellied Pipit. Sonograms of these Water Pipit subspecies described in Fijen (2014) and Garner *et al* (2015) show a typical almost M-shape structure with a steep ascending beginning of the call and a steep descending ending of the call. Asian Buff-bellied Pipit calls have a steep descending beginning and a steep descending ending of the call (Figure 1) making this call well distinguishable not only on sonograms but also in the field. Visually, *spinoletta* looks in all plumages similar to *coutellii* and the already mentioned characteristics that separate *coutellii* from Asian Buff-bellied Pipits can also be used to separate *spinoletta* from Asian Buff-bellied Pipit. In breeding plumage *blakistoni* has pale lores and buffish underparts resembling Asian Buff-bellied Pipit, but can be easily separated by a prominent whitish supercilium, absent malar stripe and unstreaked underparts (Alström & Mild 2003). In winter plumage *blakistoni* has no dark patch on the throat side, sparsely streaked underparts and unremarkable brownish wing-bars (Alström & Mild 2003).

The Asian Buff-bellied Pipit is not listed in Patrikeev (2004) and thus these records are regarded as the first for Azerbaijan. It may well have been overlooked in the past. As Azerbaijan is situated directly on the potential migration route from the Siberian breeding grounds (Alström & Mild 2003) to the Israeli wintering grounds (Shirihai 1996) more records are expected in Azerbaijan. Presumably this species should be regarded as a scarce but regular migrant in Azerbaijan. The two winter records of January 2015 suggests regular wintering in Azerbaijan.

ACKNOWLEDGEMENTS

Magnus Robb identified the mysterious pipit calls, which initiated an intensive search for more calls. Kai Gauger supplied the photos for Plates 1 and 2 and Lukas Pelikan the sound recording at Gizil Agach bay. Johannes Honold and Peter Adriaens gave information about their findings in Cyprus and Georgia, respectively. Three reviewers made useful comments which improved an earlier draft. The bird migration study at Besh Barmag bottleneck was financially supported by a scholarship from the German academic exchange service (DAAD).

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First record of Calandra Lark *Melanocorypha calandra* for Oman

JOHN ATKINS, ALMA GARRIDO, HANNE & JENS ERIKSEN

On 6 February 2015 while visiting Sun Farm in Sohar, northern Oman, JA and AG had been watching several large groups of Bimaculated Larks *Melanocorypha bimaculata* (total 350+ birds) and 200+ Greater Short-toed Larks *Calandrella brachydactyla* feeding on grass and weed seeds on bare sandy ground with scattered short scrubby vegetation. At *c*09.30 h a large *bimaculata*-like lark was noticed on open ground adjacent to a former pivot field in the company of *c*80 *bimaculata*. JA got out of the car and approached. As he did so the large bird and another of similar size close by flew up together with the flock of *bimaculata*. JA was able to track the first bird. In flight it was conspicuously larger than the *bimaculata* and he was able to clearly see a white trailing edge to the secondaries and a conspicuously blackish underwing (by comparison with the brown/grey underwing of *bimaculata*). As it turned it did not show the white/pale tip to the tail typical of *bimaculata*. JA was 100% certain of the identification of the first bird as Calandra Lark *Melanocorypha calandra* and at the time considered it likely that the second bird was the same. Unfortunately it was not possible to locate the birds again that morning. On 13 February 2015 at 08.30 h JA and AG were again checking larks along the edge of the top field, when they found a small group of Bimaculated Larks feeding on seeds in very short sparse dry grass with 2 larger *bimaculata*-like larks. Suspecting these were Calandra Larks, they drove closer. On the ground one was clearly larger and greyer on the mantle than the nearby browner *bimaculata* and seemed longer legged. When turned away from the observers, with head down, rump raised, the white edges to the tail were clearly visible. As the flock flew, one was immediately identified as a Calandra Lark

Plate 1. Calandra Lark *Melanocorypha calandra* Sun Farm, Sohar, Oman, 20 February 2015. © *Hanne & Jens Eriksen*

Plate 2. Calandra Lark *Melanocorypha calandra* Sun Farm, Sohar, Oman, 20 February 2015. © *Hanne & Jens Eriksen*

Plate 3. Calandra Lark *Melanocorypha calandra* Sun Farm, Sohar, Oman, 20 February 2015. © *Hanne & Jens Eriksen*

by the white trailing edge to the wing, black/blackish underwing and white sides to the tail. JA and AG were later able to get even better views of both larger birds together in flight, confirming that both were Calandra Larks. No call was heard.

On 20 February 2015, one Calandra Lark was observed on the top field by JA and AG and two were photographed by Jens and Hanne Eriksen (Plates 1–4, Plate 5 shows one of the numerous Bimaculated Larks seen on the same day). The following day, four Calandra Larks were found in short grass adjacent to the top field, in the company of a group of 250+ Bimaculated Larks, 50+ Greater Short-toed Larks and numerous Black-crowned Sparrow-Larks *Eremopterix nigriceps*. All four were well seen both on the ground and in flight. This was the last date the species was found.

Plate 4. Calandra Lark *Melanocorypha calandra* Sun Farm, Sohar, Oman, 20 February 2015. © *Hanne & Jens Eriksen*

Jennings (2010) noted Calandra Lark "is a rare winter visitor to the Arabian Gulf region, with records from Kuwait, the eastern province Bahrain and the UAE and possibly Qatar" and that it often occurs alongside other lark species. Porter & Aspinall (2010) described its habitat as "open cultivated plains, grass and cereal fields, steppe and wastelands" and its status as "vagrant Bahrain, Kuwait, Saudi Arabia, UAE." There have been no previous records of Calandra Lark in Oman, but there are eight accepted records

Plate 5. Bimaculated Lark *Melanocorypha bimaculata* Sun Farm, Sohar, Sultanate of Oman, 20 February 2015. © *Hanne & Jens Eriksen*

for the United Arab Emirates, October–April (Pedersen & Aspinall 2015) so the species was considered likely for Oman. The dry derelict Sun Farm, Sohar, may seem an unattractive location for most species now, but it seems to provide suitable peaceful feeding on seeds from weeds and dry grass and a sufficient supply of water for several lark species. It is interesting to note that Bimaculated Larks, which are regular winter visitors to Sun Farm, were present in winter 2014/2015 in rather high numbers, rising to 350+ in February 2015. Given such high numbers of a closely allied species, it is perhaps not surprising that February 2015 should also provide Oman's first record of Calandra Lark, a record accepted by the Oman Bird Records Committee.

JE adds that Calandra Lark can be difficult to separate from Bimaculated Lark though there are obvious differences if seen well. Calandra is *c*20% larger than Bimaculated, obvious if seen together. Calandra is greyer overall with less bold face markings. The black spots on the sides of the breast are larger in Calandra and it has black streaking between the spots and on the upper breast. Calandra has a white trailing edge to the secondaries if seen well in flight. Bimaculated are missing this feature. Calandra also has darker underwings. Calandra has white sides to the tail whereas Bimaculated has a thin white band at the tip of the tail.

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First two records of Eurasian Bullfinch *Pyrrhula pyrrhula* and first records of Marbled Duck *Marmaronetta angustirostris* and Little Bustard *Tetrax tetrax* for over 14 and 56 years respectively, for Lebanon

GHASSAN RAMADAN-JARADI, ASSAD SERHAL & FOUAD ITANI

EURASIAN BULLFINCH *Pyrrhula pyrrhula*

Eurasian Bullfinch is found throughout central and northern Europe from the Atlantic coast of western Europe and Morocco to the Pacific coasts of Russia and Japan. In the south of Europe it tends to be a winter visitor (Peterson *et al* 1993). It is a vagrant to Cyprus (Porter & Aspinall 2010). Kumerloeve (1972) mentioned a specimen in the museum of the American University of Beirut, a male *Pyrrhula pyrrhula* without date and labelled from Syria; knowing that many other birds from Lebanese localities were also labelled from Syria. The term Syria meant in the early 20th century the Levant and the eastern Mediterranean. For reasons that are unclear, Lebanon issued a postage stamp 3 May 1965 with a drawing of a Eurasian Bullfinch on it as a bird from Lebanon (Birdtheme 2014). On 29 November 2014 a female Eurasian Bullfinch was shot in Douar above Bekfayya (Plate 1) and a male was shot 15 January 2015 in Ehden (Plate 2). Both were adults (black bills, caps and faces). These are the first two records for Lebanon.

MARBLED DUCK *Marmaronetta angustirostris*

This species appears to have suffered a rapid population decline and widespread loss of habitat during the 20th century when wetlands were drained for agriculture. This duck formerly bred in large numbers in the Mediterranean region, but is now restricted to a few sites in southern Spain, Morocco, Algeria, Tunisia, isolated pockets in Turkey, Syria, Jordan and Israel. It survives in the Mesopotamian marshlands in Iraq and in Iran (Shadegan marshes, the world's most important site), as well as isolated populations in Armenia, Azerbaijan and further to the east in western India and western China (BirdLife International 2015a). The Marbled Duck is a vagrant in Bahrain, Cyprus, Kuwait, Oman, Qatar, Saudi Arabia and United Arab Emirates (Porter & Aspinall 2010). In Lebanon, the Marbled Duck was regarded as 'accidental' by Cramp & Simmons (1977), with two records since: one Qaraoun September 1978 (Tohmé & Tohmé 1986) and one Cheikh Zennad 3 October 2000 (Ramadan-Jaradi & Ramadan-Jaradi 2002, Ramadan-Jaradi *et al* 2008). In the evening of 6 December 2014 a hunter shot one from a hide in West Beqaa province. According to the hunter, this bird was flying low and slow, a flight type that characterizes Marbled Duck. The bird had a brown body speckled with cream and a neck finely streaked white. Its blackish-brown patch around the eye extended to the nape and its wing lacked a speculum. The bill was blackish with grey pale tip and base (Plate 3). This is the third record for Lebanon.

LITTLE BUSTARD *Tetrax tetrax*

The Little Bustard has 2 distinct breeding populations: western and eastern. The western winters in the Mediterranean zone especially the Iberian peninsula. The eastern populations winter from Turkey and the Caucasus to Iran and erratically elsewhere,

Plate 1. Female Eurasian Bullfinch *Pyrrhula pyrrhula* shot 29 November 2014, Douar, Lebanon. © *Rami Hannouch*

Plate 2. Male Eurasian Bullfinch *Pyrrhula pyrrhula* shot 15 January 2015, Ehden, Lebanon. © *Hassan El Khoury*

Plate 3. Marbled Duck *Marmaronetta angustirostris* shot 6 December 2014 in West Beqaa, Lebanon. © *Anon*

Plate 4. A Little Bustard *Tetrax tetrax*, shot 300 m asl above Jiyyeh's coastal electricity plant 11 December 2013, Lebanon. © *Anon*

Plate 5. A Little Bustard *Tetrax tetrax*, Tal Znoub, Lebanon, 19 November 2014. © *Maher Nassif*

with Azerbaijan holding the main wintering quarters (BirdLife International 2015b). In Syria, the Little Bustard has a few very old records from the north suggesting that a small population once wintered (Murdoch & Betton 2008). It was also reported from the desert of Palmyra between 1948 and 1950 (Jeffery 1978). A female was shot in central Syria between 1975 and 1982 but no records since (Murdoch & Betton 2008). In Israel the species appears to be a scarce or rare passage migrant and winter visitor, whereas it is absent in Jordan (Shirihai *et al* 1999). In Lebanon there is one previous record, southeast of Saida 17 October 1958 (Flash 1959, Ramadan-Jaradi *et al* 2008). Very recently, four *Tetrax tetrax* were shot by hunters in late 2013 and in 2014: one at 300 m asl above Jiyyeh's coastal electricity plant 11 December 2013 during the 'Alexa' storm (Plate 4), one at 500 m above Saida coast late November 2014, one at Anjar 13 November 2014 and one at Tal Znoub in West Beqaa province, 19 November 2014 (Plate 5). These records suggest the species is perhaps a scarce passage migrant. These observations of the Little Bustard constitute the first records in Lebanon for over 64 years.

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Birds in Kabul, Afghanistan, 2012–2014

MARK MALLALIEU

This paper presents results from field observations and limited ringing of birds carried out within a compound in the Wazir Akbar Khan area of central Kabul city, Afghanistan, where I lived and worked 2 December 2012–28 November 2014 except during periods of leave. In addition, a few observations from other locations within the city during the same period, some by other observers, are included. An important *caveat* is that the study area was in a very small urban setting with little habitat diversity.

STUDY AREA

The study area (1800 m asl) was a compound of roughly three ha, covered partly by buildings and roads but also with some gardens (Plate 1). It contained a variety of bushes and trees including numerous fruit and nut species: apple *Malus domestica*, pear *Pyrus communis*, plum *Prunus domestica*, apricot *Armeniaca vulgaris*, pomegranate *Punica granatum*, quince *Cydonia oblonga*, black mulberry *Morus nigra*, almond *Amygdalus communis* and grape *Vitis vinifera*. Other trees included Siberian elm *Ulmus pumila*, Turkish pine *Pinus brutia*, ash *Fraxinus* sp, tree of heaven *Ailanthus altissima* and black locust *Robinia pseudacacia*. All but the last two named are native to central or southwest Asia (Breckle & Rafiqpoor 2010). A wide range of garden flowers was also grown, including many roses *Rosa*. Kabul has hot summers and cold winters. In the summer months June–August, the temperature reaches a mean daily maximum of 32.1°C in July, with a mean daily minimum of 15.3°C in that month. Winter temperatures drop to a mean daily maximum of 4.5°C and mean daily minimum of −7.1°C in January (World Meteorological Organisation 2015).

Plate 1. Typical garden in study area, central Kabul city, Afghanistan, 18 April 2014. © *Mark Mallalieu*

The summer months to November have very little rainfall with largely cloudless skies. In March–May there is some increase in rainfall, whilst the city experiences snow during December–February or March. There is usually little wind other than during occasional thunderstorms or dust storms.

METHODS

Studies were carried out December 2012–November 2014 except during absences on leave. During the periods of bird migration late March–early June and mid July–early November, the most productive parts of the study area were checked almost daily shortly after dawn. Given the small area involved, this activity often took as little as five minutes, but could take longer if many birds were present. Observations from a static position were also made, particularly at weekends, but also to a limited extent in the early morning and evening, which allowed some detection of birds in the sky over the city as well as of birds within the compound. Opportunistic observations were also made at other times, a few from other locations within the city. Absences that reduced coverage during the migration periods were: 22 May–4 June 2013, 25 July–11 August 2013, 14 September–4 October 2013, 14–30 May 2014, 18 July–2 August 2014, 29 August–6 September 2014.

Mist-netting and ringing of birds in garden areas was carried out on 33 days 21 August 2013–6 November 2013, 41 days 4 April 2014–2 June 2014, and on 73 days 3 August 2014–5 November 2014. Apart from one occasion when a site 500 m from the study area was used, all ringing was carried out within the compound. The structure and extent of tree and bush cover was highly suboptimal for mist-netting. In addition, the presence of feral cats meant that nets had to be kept under more or less constant observation. As a result, normally only one or two six or nine m nets were used. Rings were supplied by the Bombay Natural History Society. A range of biometric data was taken, depending on the species trapped.

RESULTS

I observed or trapped 79 species, with four or five further species that were inadequately documented. These are all listed in Appendix 1, which shows the months in which each species was recorded, the maximum daily count and brief comments where necessary. Square brackets indicate lack of sufficient documentation. Proof of breeding is denoted by B. Three species of conservation concern were recorded, each on only one occasion: Himalayan Griffon Vulture *Gyps himalayensis*, Cinereous Vulture *Aegypius monachus* and Greater Spotted Eagle *Clanga clanga*. One species not currently listed for Afghanistan (UNEP 2008) is Red-backed Shrike *Lanius collurio* (Mallalieu & Kaestner 2015). 283 individuals of 17 species were ringed, with no recoveries reported so far.

Notes on selected species follow. Information is included on all species of small passerine migrants regularly seen, and all 15 species of sylviid warblers recorded (migratory movements of this group are a distinctive feature within the study area). For the species of conservation concern VU = Vulnerable and NT, Near Threatened (IUCN 2015). A few records are included where insufficient evidence was obtained to determine the species involved, but which are nevertheless of interest. 'Kabul' means Kabul city.

[**Eastern Cattle Egret** *Bulbulcus coromandus*]. A compact group of 30 small white egrets with yellow bills flew low west at 06.00 h, 30 April 2013. Although *B. coromandus* seems much the more likely species, *B. ibis* might conceivably occur. Neither is listed for Afghanistan (UNEP 2008), although 'Cattle Egret' has been reported from Kandahar: a single 8 April 2007 (Scheltema undated).

Crested Honey Buzzard *Pernis ptilorhynchus*. One flew north over the city during poor weather, 6 April 2014. This may be only the third published record for Afghanistan (Schweizer & Mitropolskiy 2008). In 1986 and 1987, a total of 13 Crested Honey Buzzards was noted migrating northwest over Islamabad, Pakistan, between 8 March and 12 April (Mallalieu 1988).

Himalayan Griffon Vulture *Gyps himalayensis* NT. Two juveniles photographed soaring overhead with 13 Eurasian Griffon Vultures and two Cinereous Vultures mid morning 6 April 2014 (Plate 2), after heavy overnight rain, with low cloud and snow in the surrounding hills.

Eurasian Griffon Vulture *Gyps fulvus*. One high over the west of the city 2 November 2013. 13 soaring overhead with other vulture species 6 April 2014 (Plate 2). Seven overhead in poor weather 31 October 2014. In addition, an unidentified *Gyps* vulture over the southeast of the city 18 April 2014.

Plate 2. Juvenile Himalayan Griffon Vulture *Gyps himalayensis* (upper bird) with juvenile Eurasian Griffon Vulture *Gyps fulvus*, central Kabul city, Afghanistan, 6 April 2014. © *Mark Mallalieu*

Cinereous Vulture *Aegypius monachus* NT. Two overhead with Eurasian Griffon and Himalayan Griffon Vultures 6 April 2014.

Greater Spotted Eagle *Clanga clanga* VU. One photo'd flying northeast overhead 5 April 2014 confirmed as this species (D Forsman *in litt*). An eagle photo'd flying low east overhead 9 April 2013 also probably this species. Mentioned as vagrant to central and eastern Afghanistan by Naoroji (2006) but more likely to be scarce migrant given wintering range in South Asia.

'Asian' Shikra *Accipiter* (*badius*) *cenchroides*. Regularly seen April (earliest 10 April 2014) with a few sightings June–August. Display by pair or male seen on three occasions April. The presence of this species in Kabul in summer is consistent with Naoroji (2006) and Rasmussen & Anderton (2012), though the distribution maps in the latter and in Ayé, Schweizer and Roth (2012) do not include Kabul within its breeding range. Identification as *cenchroides* assumed.

Northern Goshawk *Accipiter gentilis*. An adult flew low overhead 07.30 h, 25 October 2014, being in view for *c*20 s at *c*80 m range. Clearly a big accipiter showing a powerful hooked bill on a large head. Much larger than the Eurasian Sparrowhawks and Shikras that occur in Kabul, giving the impression of being close in size to a Steppe Buzzard *Buteo buteo vulpinus*. It had long, broad and powerful wings. The tail appeared rather long compared to Steppe Buzzard and was held more tightly closed. The head showed a striking whitish supercilium. The underbody was whitish, finely barred with grey and underwings were also pale although exact plumage details not noted. The upperparts were brownish-grey. It did not appear to have jesses or other evidence of captivity. I am very familiar with this species in the UK. Outside the mapped distribution in Rasmussen & Anderton (2012) and Ayé *et al* (2012).

Rose-ringed Parakeet *Psittacula krameri*. Common resident, seen daily, though no proof of breeding obtained and unclear whether of captive or wild origin. Rasmussen & Anderton

Plate 3. Adult Long-tailed Shrike *Lanius schach*, central Kabul city, Afghanistan, 29 June 2013. © *Mark Mallalieu*

(2012) refer to 'sight records' from Kabul and Jalalabad, implying that further evidence of status would be useful. Many photos taken by author.

Red-backed Shrike *Lanius collurio.* Adult male photographed 22 August 2014, first or second for Afghanistan (Mallalieu & Kaestner 2015).

Long-tailed Shrike *Lanius schach.* Fairly common spring migrant (Plate 3, earliest 7 April 2014) with some birds staying to breed. Maximum count three 29 April 2013. Latest sighting 26 August 2014. Seven individuals ringed.

[Grey-throated Martin *Riparia chinensis*/**Pale Martin** *Riparia diluta***]**. In late August–early September, small numbers of hirundines *Riparia* spp observed some evenings, usually moving southeast and presumably to a roosting site. On one occasion, 50 seen in one hour. Although several photos taken, only one of these birds was identified with certainty (see Sand Martin *Riparia riparia* below). Many other martins were presumably either Grey-throated or Pale. Grey-throated Martin occurs as a summer visitor in Kabul and was mapped as resident in Afghanistan by Rasmussen & Anderton (2012). This appears to be at the extreme western limit of its global distribution *eg* it was not recorded from Bamiyan province *c*190 km to the west of Kabul in a 2008 survey (Bussutil & Ayé 2009). Pale Martins of the nominate race and *indica* occur in northeast Afghanistan (Rasmussen & Anderton 2012).

Sand Martin *Riparia riparia.* One hirundine photo'd 13 September 2014 was a Sand Martin *Riparia riparia*, probably an adult as it shows suspended wing moult, with three new inner primaries. The status of this species in South Asia is poorly understood and Rasmussen & Anderton (2012) cite only specimen records from Afghanistan. However, it was found in Bamiyan province in a May/June 2008 survey (Bussutil & Ayé 2009).

Cetti's Warbler *Cettia cetti.* One ssp *albiventris* trapped 26 September 2014. Within expected migration route though capture in small urban garden unexpected.

Siberian Chiffchaff *Phylloscopus tristis.* Common migrant in spring (earliest 28 March 2014, latest 17 May 2014), max 25 on 18 April 2013. Return passage noted from September (Plate 4, earliest 23 September 2014), max 20 on 18 October 2013. Numbers reduced sharply early November. In 2014 a few winter records, single birds January, February and 8 March. During October and early November, but not during spring passage, song and calls heard on several occasions. 87 individuals ringed.

Sulphur-bellied Warbler *Phylloscopus griseolus.* Singles 18 and 20 April 2013 may have been same individual. Also, singles seen Kabul 18 and 20 May 2013 (Harrison & Lamsdell 2014).

Hume's Leaf Warbler *Phylloscopus humei.* Common migrant spring (Plate 5, earliest 4 April 2014, latest 14 May 2013 and 2014), max count 20 on 25 April 2013. Return passage noted from September (earliest 8 September 2014, trapped, remaining until at least 13 September; next bird 20 September 2014), max five on 18 and 24 October 2014. Numbers reduced sharply in early November. In 2014, a few winter records of singles January, February and 8 March. Frequently heard singing in spring but not autumn. 37 individuals ringed.

Green Warbler *Phylloscopus nitidus.* Passage noted spring, earliest 5 April 2014 (photo'd), latest 6 May 2014 (retrap of bird ringed 30 April 2014). Daily max

Plate 4. Siberian Chiffchaff *Phylloscopus tristis*, central Kabul city, Afghanistan, 1 November 2013. © *Mark Mallalieu*

Plate 5. Hume's Leaf Warbler *Phylloscopus humei*, central Kabul city, Afghanistan, 18 April 2014. © *Mark Mallalieu*

Plate 6. Green Warbler *Phylloscopus nitidus*, central Kabul city, Afghanistan, 11 April 2014. © *Mark Mallalieu*

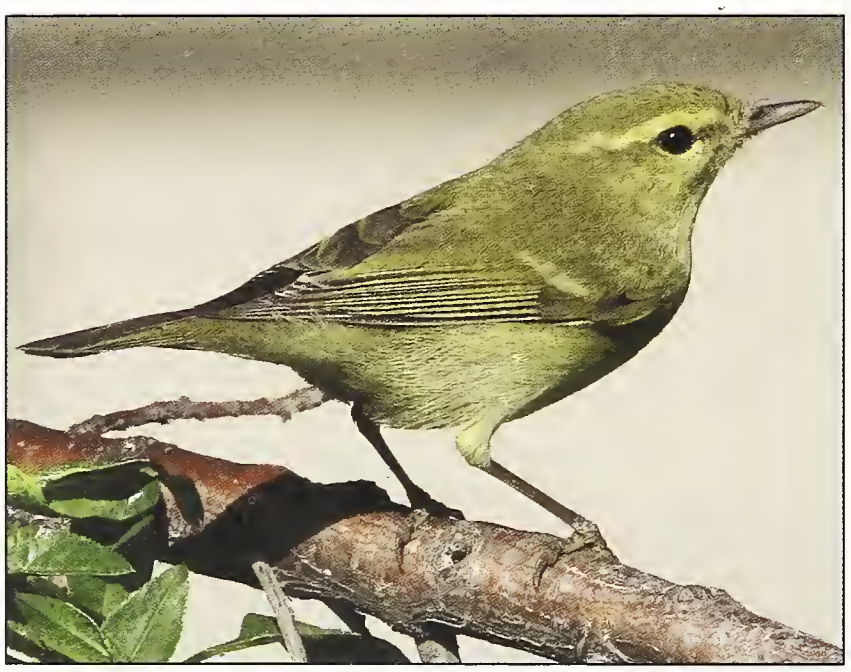

Plate 7. Green Warbler *Phylloscopus nitidus*, central Kabul city, Afghanistan, 29 April 2014. © *Mark Mallalieu*

Plate 8. First calendar year Green Warbler *Phylloscopus nitidus*, central Kabul city, Afghanistan, 30 October 2014. © *Mark Mallalieu*

three 20, 22 and 28 April 2014. Single 1st year bird trapped 30 October 2014 the only autumn migrant noted. Bird observed singing in April. 14 individuals ringed. Presence of Green Warblers suspected spring 2013 on basis of photos. Confirmed spring 2014 after ringing started. In the field, the only reliable plumage features were the yellow supercilium, ear coverts and throat, which appeared consistently different to the duller Greenish Warbler *P. trochiloides* given favourable light conditions. In the hand somewhat richer olive-green upperparts and very pale lemon-yellow suffusion to much of underparts below throat were also consistent differences; the very slight and partial lemon-yellow wash to the underparts of some Greenish Warblers was never visible in the field. Several Green Warblers showed a faint, faded second wing-bar on median coverts, not seen in any Greenish Warblers in the field or trapped. In the hand no examples of either species had a supercilium extending onto the forehead, and this feature was only observed in one Greenish Warbler photo'd in

Plate 9 (top). Greenish Warbler *Phylloscopus trochiloides*, central Kabul city, Afghanistan, 4 May 2014. © *Mark Mallalieu*

Plate 10 (bottom left). Greenish Warbler *Phylloscopus trochiloides*, central Kabul city, Afghanistan, 3 May 2014. © *Mark Mallalieu*

Plate 11 (bottom right). Clamorous Reed Warbler *Acrocephalus stentoreus*, central Kabul city, Afghanistan, 29 April 2014. © *Mark Mallalieu*

the field. On average, Green Warblers had slightly greater wing and bill lengths as shown by the following data from trapped birds. Green Warbler wing length, mean 63 mm (n 13, 58–67 mm). Greenish Warbler wing length, mean 60 mm (n 20, 57–63 mm). Green Warbler bill (to skull) length, mean 13.4 mm (n 14, 12.3–14.4 mm). Greenish Warbler bill length, mean 12.9 mm (n 20, 12.4–13.7 mm). These differences were not considered useful in the field. No sound recordings of either species were made and song differences were not studied. Both bi- and trisyllabic calls were heard from Green Warblers, whereas Greenish Warblers always gave a bisyllabic call. Examples of Green Warblers in Kabul are shown in Plates 6–8, but it should be noted that these images do not correctly represent the actual appearance of Green Warblers, since yellow tones were rather poorly captured by the camera.

Greenish Warbler *Phylloscopus trochiloides.* Common spring migrant (Plates 9, 10) arriving later than previous species and last birds moving through later. Earliest 29 April 2014, latest 20 May 2013, max count 30 on 9 May 2014. Song heard frequently May. Not observed or trapped on return passage. 25 individuals ringed.

Clamorous Reed Warbler *Acrocephalus stentoreus.* One 29 April 2014 (Plate 11) feeding on aphids in an almond tree.

Plate 12 (top left). Moustached Warbler *Acrocephalus melanopogon mimicus*, central Kabul city, Afghanistan, 27 August 2013. © *Mark Mallalieu*

Plate 13 (top right). First calendar year Paddyfield Warbler *Acrocephalus agricola*, central Kabul city, Afghanistan, 26 August 2013. © *Mark Mallalieu*

Plate 14 (right). Paddyfield Warbler *Acrocephalus agricola*, central Kabul city, Afghanistan, 13 April 2013. © *Mark Mallalieu*

Plate 15. Blyth's Reed Warbler *Acrocephalus dumetorum*, central Kabul city, Afghanistan, 2 May 2014. © *Mark Mallalieu*

Moustached Warbler *Acrocephalus melanopogon*. One ssp *mimicus* trapped but not ringed 27 August 2013 (Plate 12).

Paddyfield Warbler *Acrocephalus agricola*. Passage (Plates 13, 14) noted in spring (earliest 13 April 2013, latest 10 May 2013). Max 3 21–22 April 2014, though 10 seen in 30 m line of small trees at different location Kabul 13 April 2014. A few records August (earliest 24 August 2014, latest 31 August 2013). Eight individuals ringed.

Blyth's Reed Warbler *Acrocephalus dumetorum*. Common spring migrant (Plate 15, earliest 18 April 2014, latest 2 June 2014), max 10 on 10 May 2013. Smaller return passage noted July–September (earliest 25 July 2013, latest 19 September 2014) with max two on several dates. Song heard May. 25 individuals ringed. Relevant biometrics taken confirmed none were Large-billed Reed Warblers *A. orinus*. Four had bill lengths in range 18.7–19.0 mm, above the max in Kennerley & Pearson (2010). One of these had a hind claw of 7 mm. However, other characteristics including wing-tail ratio indicated *A. dumetorum* (P D Round *in litt*), confirmed by DNA analysis (M Collinson *in litt*).

Booted Warbler *Iduna caligata*. 2–3 photo'd 3 September 2013 (Plate 16).

Sykes's Warbler *Iduna rama*. One photo'd 20 July 2013. Further birds seen 21 July 2013, 6 September 2013 and 3 and 25 August 2014.

Common Grasshopper Warbler *Locustella naevia*. One photo'd 26 April 2014.

Hume's Whitethroat *Sylvia althaea althaea*/'**Taiga' Whitethroat** *Sylvia* (*althaea*) *blythi*. Birds of the Lesser Whitethroat *S. curruca* complex were observed and trapped April–May (earliest 12 April 2013, latest 14 May 2014) and August–October

Plate 16. Booted Warbler *Iduna caligata*, central Kabul city, Afghanistan, 3 September 2013. © *Mark Mallalieu*

Plate 17. Lesser Whitethroat *Sylvia* (*althea*) *blythi*, central Kabul city, Afghanistan, 22 September 2014. © *Mark Mallalieu*

Plate 18. Hume's Whitethroat *Sylvia a. althaea*, central Kabul city, Afghanistan, 9 May 2014. © *Mark Mallalieu*

Plate 19. Common Whitethroat *Sylvia communis*, central Kabul city, Afghanistan, 21 August 2014. © *Mark Mallalieu*

(earliest 22 August 2014, latest 27 October 2014). Daily spring max five 5 May 2013 and autumn max eight 11–12 September 2013. Reference to Olsson *et al* (2013) suggests that the most likely clades to occur are *althaea, blythi, halimodendri* and *curruca*. Plumage details, notably tail pattern, extent of brown tones on upperparts and peachy tones on underparts; wing formula; and calls made by some birds (noted as an accelerating and descending "tch-che-che-che-che-che" for one bird) suggested that most or all birds were *blythi* and/or *halimodendri*. Quiet warbling subsong heard September 2014 from some birds. DNA analysis carried out on two individuals, both confirmed as *blythi* (M Collinson *in litt*, Plate 17). *Sylvia a. althaea* recorded as follows: one photo'd 17 May 2013; singles ringed 2 and 9 May 2014 (Plate 18). Extensive series of photos taken of Lesser Whitethroats in the field and hand, but apart from these examples of *S. a. althaea* and the birds for which DNA evidence was obtained, precise identification was not considered possible.

Plate 20. Adult male Common Blackbird *Turdus merula*, central Kabul city, Afghanistan, 3 November 2014. © *Mark Mallalieu*

Common Whitethroat *Sylvia communis*. Singles 19 August 2013 and 5 September 2014. Two ringed 21 August 2014 (Plate 19). None assigned to subspecies.

Common Blackbird *Turdus merula*. Singles recorded occasionally February–May, October and November, consistent with text on distribution (though not map) in Rasmussen & Anderton (2012). Also recorded July: a male and female 4 July 2014, then a female seen 5, 11 and 14 July. Adult male ringed 3 November 2014 (Plate 20). All presumed to be central Asian ssp *intermedius*.

Red-spotted Bluethroat *Luscinia* (*svecica*) *svecica*. Nine spring, earliest 18 April 2013, latest 1 May 2014 (one outside study area). Three autumn records 5–13 September. Four individuals ringed. Records may have included sspp *pallidogularis* and *abbotti* (Rasmussen & Anderton 2012).

Red-breasted Flycatcher *Ficedula parva*. Fairly common spring migrant (earliest 7 April 2014, latest 29 April 2014), max five 17 April 2013. Return passage noted from October (earliest 5 October 2013, latest 29 October 2013), max two 20–21 October 2014. 13 individuals ringed. Where possible, the colour of the uppertail-coverts was noted and for adult males the breast colouration, to check for Taiga Flycatcher *F. albicilla*. No examples of latter recorded.

[**White-browed Wagtail** *Motacilla maderaspatensis*]. Brief and rather distant views of single bird in west of city 8 March 2013 and one seen briefly over study area 18 April 2014. Species not properly documented for Afghanistan though A Kullberg found it "along the Kabul river and in Kabul" in 2002, noting that it was uncommon (Kullberg undated).

Tree Pipit *Anthus trivialis*. Several records 2013 and 2014 of singles or flocks up to five birds 18–25 April. Singles 1 and 6 September 2013. All birds except one flying overhead.

Common Rosefinch *Erythrina erythrina*. Common spring migrant usually seen in flocks (earliest 16 April 2014, latest 14 May 2014), max 300 on 26 April 2013. No return passage seen.

European Greenfinch *Chloris chloris*. One male 7 February 2014 after heavy snow. A male and a female 8 March 2014. A male at different site in the city 20 February 2014.

Only known as winter visitor to northwest Afghanistan (Rasmussen & Anderton 2012). Possibility of birds being escapes cannot be completely ruled out, but arrival of first bird after bad weather suggests wild origin. None showed any trace of captivity.

DISCUSSION

Although very little information was collected on species of conservation concern, the records of Himalayan Griffon Vulture and Cinereous Vulture over Kabul at least confirm the continued presence of these in the area. Both were recorded Bamiyan province in 2008 in small numbers (Bussutil & Ayé 2009). The numbers of migrant warblers and other small passerines recorded in such a small study area indicates that thousands of these birds use Kabul's parks and gardens as refuelling sites during spring migration. Abundance of native trees may be an important factor in the attraction of the city to such birds, which appeared to be able to locate food-rich trees very quickly. For instance, after overnight rain in April and May aphid-infested almond trees could be full of warblers just after dawn whilst other trees held few or no birds. During return passage numbers of migrant passerines were smaller. This could be because in late summer and autumn extensive areas around Kabul, including mountain valleys, present feeding opportunities that are not available in spring. On return passage, Greenish Warblers are common in Islamabad, Pakistan, only 370 km ENE of Kabul (Mallalieu 1988), which suggests that at least this species uses a more mountainous return route across the Hindu Kush that is too inhospitable in spring. There was a positive correlation between poor weather (rain and cloud) and numbers of small passerine migrants, suggesting that with the clear skies and light winds that predominate around Kabul, most such birds will continue their migration without resting and feeding in the city area. Poor weather, especially in April, also results in more birds of prey passing over Kabul, presumably displaced from their usual migration route. Large numbers of captive wild birds are offered for sale in Kabul, with the author having seen photos showing caged White-capped Buntings *Emberiza stewarti*, Red-headed Buntings *Emberiza bruniceps* and Common Rosefinches. The possibility of escaped cage-birds always needs to be kept in mind. There remains considerable scope for further ornithological studies in and around the city of Kabul and many further species are likely to be recorded. For example, an adult male Asian Paradise Flycatcher *Terpsiphone paradisi* was seen and photo'd in the city over a two week period from 22 April 2015 (Amy Jennings pers comm).

ACKNOWLEDGEMENTS

Raffael Ayé commented on an earlier version of this paper and assisted with identification of certain species. The Bombay National History Society, notably Asad Rahmani, Dr Balachandran, Sujit Nardwade and Nikhil Devasar, supplied the rings used in this study and Bill Harvey helped facilitate this arrangement. The Wetland Trust permitted me to undertake refresher training in ringing techniques at Icklesham, UK, and Ian Hunter provided helpful advice there. Prof Phil Round gave valuable support and advice with the ringing activities. Prof Martin Collinson arranged for DNA analysis from samples. Mark Bowden facilitated ringing at a second site in Kabul. Anssi Kullberg provided a number of records and comments on my observations. Nigel Redman helpfully commented on my observations. Dick Forsman, Annika Forsten, Peter Kennerley, Guy Kirwan, Manuel Schweizer and Lars Svensson assisted with identification of some species from photos. Peter Kaestner provided comparative information on birds in Mazar-e-Sharif, northern Afghanistan. Dr Sabina Knees (Centre for Middle Eastern Plants, Royal Botanic Gardens Edinburgh) helped with tree identification. Through the assistance of Andrew Scanlon (UNEP) and Amy Jennings (Bremen Research and Development Organisation) I was able to demonstrate bird ringing to young Afghan scientists on two occasions.

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Appendix 1. Bird species recorded in Kabul, Afghanistan, 2 December 2012–28 November 2014, showing months in which each species was recorded, maximum daily count and brief comments where necessary. Square brackets indicate lack of sufficient documentation. Proof of breeding is denoted by B.

		Months recorded	Maximum daily count	Fewer than five records	Comments (B = confirmed breeding)
ARDEIDAE					
Black-crowned Night Heron	*Nycticorax nycticorax*	iv–v	12	x	Two records, flying overhead
[Eastern Cattle Egret]	*Bulbulcus coromandus*	iv–v	30	x	See main text; *Bulbulcus ibis* not ruled out
ACCIPITRIDAE					
Crested Honey Buzzard	*Pernis ptilorynchus*	iv	1	x	Single bird flying north
Himalayan Griffon Vulture	*Gyps himalayensis*	iv	2	x	
Eurasian Griffon Vulture	*Gyps fulvus*	iv, x–xi	13	x	
Cinereous Vulture	*Aegypius monachus*	iv	2	x	
Greater Spotted Eagle	*Clanga clanga*	iv	1	x	
Booted Eagle	*Hieraaetus pennatus*	iv	1	x	One pale phase bird
Steppe Eagle	*Aquila nipalensis*	iii–iv	1	x	
Asian Shikra	*Accipter (badius) cenchroides*	iv–viii	2		Display seen; subspecies assumed
Eurasian Sparrowhawk	*Accipiter nisus*	i–v, x	3		
Northern Goshawk	*Accipiter gentilis*	x	1	x	
Western Marsh Harrier	*Circus aeruginosus*	iv	1	x	Overflying Kabul
Hen Harrier	*Circus cyaneus*	x	1	x	Overflying Kabul

		Months recorded	Maximum daily count	Fewer than five records	Comments (B = confirmed breeding)
Black Kite	*Milvus migrans*	iv, viii–x	5		Subspecies not determined, though one photo'd bird is either nominate *migrans* or *M. m. lineatus*
Long-legged Buzzard	*Buteo rufinus*	x	1	x	
Steppe Buzzard	*Buteo buteo vulpinus*	ii, x		x	
SCOLOPACIDAE					
Common Sandpiper	*Actitis hypoleucos*	viii	1	x	Flying overhead
LARIDAE					
[Gull sp]	*Larus sp*	iv	2	x	Two immatures high overhead, considered likely to be *L. cachinnans* ssp *cachinnans* or *barabensis*, or *L. (fuscus/heuglini) heuglini*
COLUMBIDAE					
Feral Pigeon	*Columba livia domestica*	i–xii			Common in Kabul, not recorded systematically
Eurasian Collared Dove	*Streptopelia decaocto*	iv-ix	10		Some evidence of southeasterly migration in August/September
Laughing Dove	*Spilopelia senegalensis*	i–xii			Common in Kabul, not recorded systematically
CUCULIDAE					
Common Cuckoo	*Cuculus canorus*	x		x	
CAPRIMULGIDAE					
European Nightjar	*Caprimulgus europaeus*	viii	1	x	Outside study area
APODIDAE					
Alpine Swift	*Tachymarptis melba*	iv–v, viii–x	50		
Common Swift	*Apus apus*	iv, viii–ix	6		
Little Swift	*Apus affinis*	iv–x	20		
CORACIIDAE					
European Roller	*Coracias garrulus*	vii–viii	4		Nearly always observed flying overhead just after dawn
MEROPIDAE					
European Bee-eater	*Merops apiaster*	iv–viii	22		
UPUPIDAE					
Eurasian Hoopoe	*Upupa epops*	iv–v, vii–x	2		Song heard in April, pair in May
FALCONIDAE					
Common Kestrel	*Falco tinnunculus*	iii–iv, x–xi	2		
Eurasian Hobby	*Falco subbuteo*	v–vi	2	x	Pair in June
PSITTACIDAE					
Rose-ringed Parakeet	*Psittacula krameri*	i-xii			Assumed to breed in Kabul but not proven

		Months recorded	Maximum daily count	Fewer than five records	Comments (B = confirmed breeding)
LANIIDAE					
Red-backed Shrike	*Lanius collurio*	viii	1	x	
Daurian Shrike	*Lanius isabellinus*	viii	1	x	
Long-tailed Shrike	*Lanius schach*	iv–viii	4		B adult seen with recently fledged young; also passage migrant
ORIOLIDAE					
Indian Golden Oriole	*Oriolus kundoo*	iv–ix	5		Heard singing in May
CORVIDAE					
Eurasian Magpie	*Pica pica*	i–xii	6		B Common urban bird
Carrion Crow	*Corvus corone*	iv	1	x	
Northern Raven	*Corcus corax*	iv, x	1	x	
ALAUDIDAE					
Crested Lark	*Galerida cristata*	iv	1	x	Outside study area; probably common in open areas
HIRUNDINIDAE					
[Grey-throated or Pale Martin]	*Riparia chinensis/Riparia diluta*	viii–ix	50		Daily maximum relates to all *Riparia* spp
Sand Martin	*Riparia riparia*	ix	1	x	Probably under-recorded as most *Riparia* spp not identified
Barn Swallow	*Hirundo rustica*	iii–ix	50		B
Eurasian Crag Martin	*Ptyonoprogne rupestris*	x–xi	50		
Red-rumped Swallow	*Cecropis daurica*	iv–x	50		B
SYLVIIDAE					
Cetti's Warbler	*Cettia cetti*	ix	1	x	
Siberian Chiffchaff	*Phylloscopus tristis*	i–xi	25		
Sulphur-bellied Warbler	*Phylloscopus griseolus*	iv–v	1	x	
Hume's Leaf Warbler	*Phylloscopus humei*	i–xi	20		
Green Warbler	*Phylloscopus nitidus*	iv–v, x	3		
Greenish Warbler	*Phylloscopus trochiloides*	iv–v	30		
Clamorous Reed Warbler	*Acrocephalus stentoreus*	iv	1	x	
Moustached Warbler	*Acrocephalus melanopogon*	viii	1	x	
Paddyfield Warbler	*Acrocephalus agricola*	iv–v, viii	3		Maximum count of 10 outside study area
Blyth's Reed Warbler	*Acrocephalus dumetorum*	iv–ix	10		
Booted Warbler	*Iduna caligata*	ix	2	x	
Sykes's Warbler	*Iduna rama*	vii-ix	1	x	
Common Grasshopper Warbler	*Locustella naevia*	iv	1	x	
Hume's Whitethroat	*Sylvia althea althaea*	v	1	x	

		Months recorded	Maximum daily count	Fewer than five records	Comments (B = confirmed breeding)
Central Asian/Taiga Lesser Whitethroat'	*Sylvia (althea) halimodendri/ blythi*	iv–v, viii–x	8		Two birds were shown by DNA analysis to be *S. c. blythi* (see main text). Lesser Whitethroat *Sylvia c. curruca* may also occur
Common Whitethroat	*Sylvia communis*	viii–ix	2	x	
STURNIDAE					
Common Myna	*Acridotheres tristis*	i–xii	20		B
Brahminy Starling	*Sturnia pagodarum*	iv–ix	4		
Rose-coloured Starling	*Pastor roseus*	vii–viii	3		
TURDIDAE					
Common Blackbird	*Turdus merula*	ii–v, vii, x–xi	2		
Black-throated Thrush	*Turdus atrogularis*	iv	1	x	
MUSCICAPIDAE					
Spotted Flycatcher	*Muscicapa striata*	iv, ix	1	1	
Red-spotted Bluethroat	*Luscinia (svecica) svecica*	iv–v, ix	2		Possibly included other races (see main text)
Red-breasted Flycatcher	*Ficedula parva*	iv, x	5		
Central Asian Black Redstart	*Phoenicurus (ochruros) phoenicuroides*	iv	1	x	
Siberian Stonechat	*Saxicola maurus*	iv, ix	3	x	
PASSERIDAE					
Indian House Sparrow	*Passer 'domesticus' indicus*	iv–ix, xi	50		200 at another location in city in April
Eurasian Tree Sparrow	*Passer montanus*	i–xii	200		B
MOTACILLIDAE					
Grey Wagtail	*Motacilla cinerea*	iv–v	1	x	
White Wagtail	*Motacilla alba*	iv	8		Subspecies not determined: all birds flying high overhead
[White-browed Wagtail]	*Motacilla maderaspatensis*	ii–iv	1	x	Not adequately documented: see main text
Tree Pipit	*Anthus trivialis*	iv, ix	5		
FRINGILLIDAE					
Common Chaffinch	*Fringila coelebs*	i–iii, x–xii	2		6 at another location in city in November
Brambling	*Fringilla montifringilla*	xi	2	x	Single record was outside main study area
Common Rosefinch	*Erythrina erythrina*	iv–v	300		
European Greenfinch	*Chloris chloris*	ii–iii	2	x	
Eastern Goldfinch	*Carduelis (carduelis) caniceps*	iv–v	1	x	
Emberizidae					
Red-headed Bunting	*Emberiza bruniceps*	v, viii	1	x	May bird was male found dead: possible escape from captivity. August bird 1st year, likely wild.

First record of White-headed Yellow Wagtail *Motacilla flava leucocephala* for Azerbaijan

MICHAEL HEISS & FRIEDRICH EIDAM

At 09.25 h on 12 April 2012, whilst conducting a bird migration study at Besh Barmag bottleneck in Azerbaijan (40° 59′ N, 49° 13′ E, *c*80 km northwest of Baku, see Heiss 2013), we found a White-headed Yellow Wagtail *Motacilla flava leucocephala*. It was observed and photographed for *c*30 minutes. The bird was feeding on the ground and was well watched from a distance of less than 10 m. The White-headed Yellow Wagtail was observed in a flock of *c*400 Yellow Wagtails *Motacilla flava* dominated by subspecies *beema* and *lutea*. Migrating Yellow Wagtails often stopped their flight to rest among grazing sheep in the steppe close to our observation point in the coastal plain close to the Caspian sea. The White-headed Yellow Wagtail then flew off and left the area with the other Yellow Wagtails presumably to continue their migration. This subspecies has not been previously recorded in Azerbaijan (Patrikeev 2004).

The White-headed Yellow Wagtail showed the typical whitish head pattern with very pale grey ear coverts, crown and nape (Plates 1–3). Missing dark loral and eye stripes excluded extreme pale *beema* (Alström & Mild 2003). An aberrant Yellow Wagtail was excluded as the head pattern was typical for *leucocephala* and there was no hint in the plumage colour for albinism or leucism. According to Alström & Mild (2003) *leucocephala* shows whitish and broader wingbars, formed by the greater and median coverts. Our observed bird showed broad wingbars but with a yellowish hue. Also, the tibia should be mostly whitish feathered (Alström & Mild 2003) but the observed bird clearly showed yellow feathers on the tibia (Plates 1–3). Both characteristics could limit a

Plate 1. Lateral view of White-headed Yellow Wagtail *Motacilla flava leucocephala*, Caspian sea coast near Besh Barmag, Azerbaijan, 12 April 2012. © *Michael Heiss*

Plate 2 (top left). White-headed Yellow Wagtail *Motacilla flava leucocephala*, Caspian sea coast near Besh Barmag, Azerbaijan, 12 April 2012. © *Michael Heiss*

Plate 3 (top right). White-headed Yellow Wagtail *Motacilla flava leucocephala*, Caspian sea coast near Besh Barmag, Azerbaijan, 12 April 2012. © *Michael Heiss*

Plate 4 (bottom). A White-headed Yellow Wagtail *Motacilla flava leucocephala* from the breeding grounds, Khar Us Nuur, Khovd province, Mongolia, 1 June 2012. It looks identical to the Azerbaijan record. © *Andreas Buchheim & Lutz von der Heyde*

Plate 5. Note the yellowish feathered tibia from the same individual as in Plate 4, Khar Us Nuur, Khovd province, Mongolia, 1 June 2012. © *Andreas Buchheim & Lutz von der Heyde*

secure identification. Plates 4–5 show a White-headed Yellow Wagtail from the Mongolian breeding grounds, which is virtually not distinguishable from our observed bird showing the same head pattern, wingbars and yellow 'trousers'. Specimens in the collection of the Mongolian Academy of Sciences, Ulaanbaatar, showed either whitish or yellowish feathered tibia (A Buchheim pers comm). The observed bird from Azerbaijan is clearly within the normal range of plumage variation of *leucocephala*.

White-headed Yellow Wagtails breed in northwest Mongolia and adjacent regions (Alström & Mild 2003) and have occurred in the Middle East (Shirihai 1996, Porter & Aspinall 2010). The first record for Turkey was in 2011 (Kirwan *et al* 2014). Our White-headed Yellow Wagtail is well within the range of the taxon's vagrant distribution. A Yellow Wagtail identified as *leucocephala* was found 350 km northeast of our observation point at Fetisovo plateau in Kazakhstan (Le Nevé *et al* 2010) but the photo of it clearly shows a dark loral and eye stripe making a secure identification arguable.

Alström & Mild (2003) suggested that vagrant Yellow Wagtails of any subspecies should be considered with caution, due to head pattern variability especially intergrades between two subspecies which may look like other subspecies. Yellow Wagtails with white heads have been found breeding in northwestern France within the intergradation zone of *flava/flavissima* and are expected to be hybrids between both (Dubois 2001 in Alström & Mild 2003). However, the observed bird looked identical to those from the Mongolian breeding population and was therefore regarded as from that region.

ACKNOWLEDGEMENTS

This observation was part of a bird migration study that was financially supported by a scholarship from the German academic exchange service (DAAD). We thank Andreas Buchheim and Lutz von der Heyde for their photos and useful comments.

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Corrigendum

Eldar A Rustamov. 2015. An annotated checklist of the birds of Turkmenistan. *Sandgrouse* **37: 28–56.**

The author inadvertently omitted the species entry for Barred Warbler, which reads:

> **Barred Warbler** *Sylvia nisoria*. Uncommon passage migrant preferring valleys and oases in mountains and plains. Spring migration April, autumn August to September.

This should be inserted before **Orphean Warbler** *Sylvia hortensis* and after **Desert Warbler** *Sylvia nana* (p49).

From the Rarities Committees

Ian Harrison (compiler)

Observers who have had a country first record accepted by a rarities committee are encouraged to write it up as a note or paper for publication.

CYPRUS

BirdLife Cyprus Rarities Committee members: Colin Richardson (Chair), Melis Charalambides, Stavros Christodoulides, Jeff Gordon, Hugh Buck, Martin Hellicar and Chris Stavrou. A full list of Cyprus birds requiring rarity descriptions, and rare bird report forms, are available from Colin Richardson richar@cytanet.com.cy to whom claims should be sent. The committee has accepted the following records since the report in *Sandgrouse* 37(1).

Greater Scaup *Aythya marila.* One female Asprokremmos 3–5 December 2014 (C Richardson). Seventh record.

White-headed Duck *Oxyura leucocephala.* One Mia Milia water treatment plant 7 February 2015 (M Easterbrook). 15th record.

Black-winged Kite *Elanus caeruleus.* One Morphou 9 November 2014 (Z Gürsel). Second record.

Levant Sparrowhawk *Accipiter brevipes.* One immature Phasouri, Akrotiri 6 October 2014 (R & K Howard). 22nd record since 1993.

Pacific Golden Plover *Pluvialis fulva.* One Larnaca sewage works 21 September–3 October 2013 (P Wragg). Eighth record.

Black-bellied Sandgrouse *Pterocles orientalis.* 39 cape Kormakitis 11 January 2015 (B Gökeri, Plate 1). 12th record since 1993.

Plate 1. Black-bellied Sandgrouse *Pterocles orientalis* 8 April 2015, Phasouri, Cyprus. © *Raija Howard*

Steppe Grey Shrike *Lanius (meridionalis) pallidirostris*. One Pervolia 12 February 2014 (B Nicholson, J Stylianou). Tenth record.

Ring Ouzel *Turdus torquatus*. Three Papoutsa peak 1 November 2014 (C Papazoglou, P Panayides). 10th record since 1993.

Redwing *Turdus iliacus*. One Livadi tou Pasha 18 November 2014 (C & D Lamsdell). 33rd record since 1992.

Collared Flycatcher *Ficedula albicollis*. One (in the hand) Agios Minas 14 September 2014 (A Crabtree). Rare in autumn.

Rock Sparrow *Petronia petronia*. 11 Avagas gorge 7 November 2014 (C Lamsdell) and one Arodes 8 November 2014 (J & A Stapley). 13th & 14th records.

Eurasian Crimson-winged Finch *Rhodopechys sanguineus*. Two Mandria 13–25 January 2015 (D Nye). Second record.

Common Rosefinch *Carpodacus erythrinus*. One Lower Ezousas pools 17 November 2014 (D & C Lamsdell). Tenth record.

Yellowhammer *Emberiza citronella*. Up to six Livadi tou Pasha 7 November–4 December 2014 (P Stavrou *et al*). 16th–21st records.

Pine Bunting *Emberiza leucocephalos*. Up to five Livadi tou Pasha 10 November–25 December 2014 (D & J Walker *et al*). 8th–12th records.

EGYPT

The Egyptian Ornithological Rarities Committee comprises Sherif Baha El Din (chair), Frédéric Jiguet (secretary), Wed Abdel Latif Ibrahim, Richard Bonser, Andrea Corso, Pierre André Crochet, Andrew Grieve, Richard Hoath and Manuel Schweizer. Official external advisers are Istvan Moldovan, Ahmed Riad and Mary Megalli. Claims should be sent to eorc.secretary@gmail.com. See also www.chn-france.org/eorc/eorc.php?id_content=1 where claim forms can be downloaded.

ISRAEL

The Israel Rarities and Distribution Committee comprises Avner Cohen (secretary), Barak Granit and Yoav Perlman. Claims should be sent to Avner Cohen at israbirding@gmail.com. See also www.israbirding.com/irdc where claim forms can be downloaded. The committee has accepted the following records since the last report in *Sandgrouse* 35 (1).

Bean Goose *Anser fabalis*. One Agamon Hula 5 November 2013 (H Seif *et al*) which remained into early 2014. Third record. The first two records (Eilat, 2007 and Kfar Baruch, 2011/12) were probably ssp *fabalis* while this third record was probably *rossicus*.

Black-throated Diver *Gavia arctica*. Two off Eilat north beach 19 April 2005 (B Granit & T Landsberger). One Eilat 26 November 2008, present into December 2008 (many observers). One Ma'agan Michael fishponds 10–26 October 2013 (E Shochat, Y Charka *et al*). One Eilat north beach 27 December 2013 (S Alterman & R Mizrachi). There are now over 20 records.

Red-billed Tropicbird *Phaetheon aethereus*. One off Eilat north beach 3 July 2013 (I Shanni, A Meir *et al*). IRDC still requires claims to be submitted for this species.

Yellow-billed Stork *Mycteria ibis*. One Tel Yosef fishponds, Harod valley, 27 May–5 August 2013 (I Solnik *et al*). 20th record and first for 16 years. One Bet Netofa valley 12 July–7 August 2013 (Y Koren *et al*, Plate 2) which was then seen again Ein Hamifraz fishponds, Acre valley, 3 September 2013 (I Shimshon). 21st record. One Wadi Kane, west Samaria, 25 April 2014 (A Matzliah). 22nd record. One Tirat Zvi fishponds, Bet Shean Valley, 19–20 June 2014 (A Rinot *et al*). 23rd record.

Rüppell's Vulture *Gyps rueppellii*. One Lakhish hills, south Judean plains, 5 May 2014 (E Hadad, Plate 3). First record.

Dark Chanting Goshawk *Melierax metabates*. One Yotvata 29 April 2014 (S Arlow *et al*). Second record (first record April 1979).

Rough-legged Buzzard *Buteo lagopus*. An adult male, Urim, northwest Negev, 30 November–2 December 2012 (M Cohen *et al*.). Second record (first in winter 1984/85).

Tawny Eagle *Aquila rapax*. One east of Bet Kama, north Negev, 10–11 August 2013 (E Hadad *et al*). Fifth record. Whether records originate from Asia or Africa is unclear.

Verreaux's Eagle *Aquila verreauxii*. One adult seen several times over Eilat mountains 1–10 April 2010 (many observers) and one Red canyon, Eilat mountains 23 December 2013 (D Hilbers *et al*). Increasingly rare in recent decades.

Plate 2. Yellow-billed Stork *Mycteria ibis* 19 July 2013, Bet Netofa, Israel. © *Amir Ben-Dov*

Plate 3. Rüppell's Vulture *Gyps rueppellii* 5 May 2014, Lakhish hills, south Judean plains, Israel. © *E Hadad*

Plate 4. Lesser Sand Plover *Charadrius mongolus* 31 July 2013, Ma'agan Michael fishponds, Israel. © *Yoav Perlman*

Plate 5. Pin-tailed Snipe *Gallinago stenura* 13 October 2013, Ma'agan Michael fishponds, Israel. © *Yoav Perlman*

Lesser Sand Plover *Charadrius mongolus*. One Km20 saltpans, Eilat, 22–25 March 2010 (J Smith *et al*). Fourth record (could not be assigned to either *atrifrons* or *mongolus* group). One Bet Yanay beach 26 July 2013 (I Solnik) which relocated to Ma'agan Michael 31 July 2013 and remained until 2 August 2013 (many observers, Plate 4). Fifth record (assigned to *atrifrons* group). One Km20 saltpans, Eilat, 10 August 2000 (I Shanni) now accepted as second record (assigned to *mongolus* group). Record of May 2001 (B Granit, T Ellery *et al*) thus becomes the third.

Kittlitz's Plover *Charadrius pecuarius*. One adult Km20 saltpans, Eilat, 13–14 March 2009 (C Rozen *et al*). Extremely rare in recent decades, last recorded 2000.

Crab Plover *Dromas ardeola* One Ma'agan Michael 26 June 2014 (E Bartov & A Mayrose). Fourth record. Previous record was of two there 19 July 1997.

Greater Painted Snipe *Rostratula benghalensis*. One Hama'apil fishponds, Hefer valley, 24–26 September 2011 (H Ganzer *et al*). One Ein Hamifratz fishponds 4 November 2011 (M Mandel).

Pin-tailed Snipe *Gallinago stenura*. One ringed Tsor'a 10 November 2011 (Y Kiat *et al*). Seventh record. One Ma'agan Michael 10–14 October 2013 (E Shochat, Y Charka *et al*, Plate 5). Eighth record. No decision made as yet on the bird at Gesher fishponds, 26 October 2010 (A Ben Dov).

Hudsonian Whimbrel *Numenius* (*phaeopus*) *hudsonicus*. One Nakhsholim beach, Carmel coast, 6–17 February 2014 (R Segali, T Kahn *et al*, Plates 6 & 7). First record. After the bird was positively identified, a photograph of what was likely the same bird, from the same location, was found (August 2013, L Kislev).

Pectoral Sandpiper *Calidris melanotos*. One Km20 saltpans, Eilat, 20 April 2009 (E Didner). Eighth record. One Ma'agan Michael 30 September–early October 2009

Plate 6. Hudsonian Whimbrel *Numenius* (*phaeopus*) *hudsonicus* 6 February 2014, Nakhsholim beach, Carmel coast, Israel. © *R Segali*

Plate 7. Hudsonian Whimbrel *Numenius* (*phaeopus*) *hudsonicus* 6 February 2014, Nakhsholim beach, Carmel coast, Israel. © *R Segali*

(C Rozen *et al*). Ninth record. The record at Samar sewage ponds 1–4 December 2010, reported in *Sandgrouse* 35(1), thus becomes the tenth record. One Neve Ur fishponds, Jordan valley, 2 October 2012 (G Leitner *et al*). 11th record. One Og reservoir, north Dead sea, 21 November 2012 (Y Lehnardt & R Haran). 12th record. One Km20 saltpans, Eilat, 11 May 2014 (S Shalev & I Shanni). 13th record.

Great Black-backed Gull *Larus marinus*.One adult returned to Acre each winter 2006–2014 (S Haham *et al*). 6th record.

Rufous Turtle Dove *Streptopelia* (*orientalis*) *meena*. One Hula re-flooded lake 6 November 2003 (B Granit & Z Labinger). Fourth record. The record from October 2007 (A Balaban) thus becomes the fifth record. One Ashdod, 27 February 2010 (A Bên Dov). Sixth record. One Jerusalem Bird Observatory 17 October 2010 (R Haran *et al*). Seventh record. One Nachshon reservoir, Judean plains, 13 November 2010 (A Gancz). Eighth record. One Timorim, south Judean plains, 4–5 March 2011 (R Livne *et al*). Ninth record. One Nafha vineyards, central Negev, 11–12 November 2012 (S Alterman & I Gurfinkel *et al*). Tenth record.

Turkestan Shrike *Lanius phoenicuroides*. One male Elifaz, south Arava, 27 April 2008 (A Cohen, M Clacey, T Landsberger *et al*) and another there 3 April 2010 (T Krumenacker *et al*). One male Hatzor, coastal plains, 21 August–4 September 2010 (M Cohen *et al*). One male Yotvata 27 March 2012 (J van Oosten *et al*).

Dusky Warbler *Phylloscopus fuscatus*. One ringed Yeruham lake, 12–14 October 2012 (R Livne, Y Zvik *et al*). Fifth record. One Hulda reservoir 17 October 2012 (E Banker). Sixth record.

Paddyfield Warbler *Acrocephalus agricola*. One ringed International Birdwatching and Research Centre Eilat 8 October 2008 (N Weiss *et al*). Sixth record. One ringed Ma'agan Michael 2–3 December 2009 (F Argyle *et al*). Seventh record. One ringed IBRCE, 10 September 2012 (J Ramirez, MG Loben & I Shanni). Eighth record. One ringed Hula valley ringing station 6 October 2013 (F Argyle *et al*). Ninth record.

Sykes's Warbler *Iduna rama*. One ringed IBRCE 21 September 2008 (N Weiss *et al*). Fourth record.

Common Grasshopper Warbler *Locustella naevia*. One ringed IBRCE, 28 August 2012 (Y Lehnardt, I Shanni *et al*). Eighth record. One found dead Herzliya and brought to Nature & Parks Authority wildlife hospital 9 September 2012. Ninth record. One ringed Yeruham lake 6 April 2013 (R Livne *et al*). Tenth record.

Firecrest *Regulus ignicapillus*. One mt Bar'on, Golan heights, 18–31 December 2012 (F Moffat, T Kahn *et al*). First record.

Ring Ouzel *Turdus torquatus*. One male JBO 11 April 2012 (A Rinot *et al*). One Ein Gedi 19 November 2013 (D Hirsch). Increasingly rare in recent decades.

Pied Stonechat *Saxicola caprata*. One 1cy male ringed Yeruham lake 18–22 October 2012 (E Shochat *et al*). Seventh record. One male Tirat Zvi, Bet She'an valley, 31 May 2013 (A Rinot *et al*). Eighth record. One 2cy male Neot Smadar, south Negev, 26–30 March 2014 (I Simantov *et al*). Ninth record.

'vittata' Pied Wheatear *Oenanthe pleschanka*. One male ringed Km20 date plantations, Eilat, 24–31 March 2012 (A van Egmond, M Guyt *et al*). First record *vittata* morph. One Uvda valley, south Negev, 26 March 2012 (D Forsman). Second record.

Egyptian Yellow Wagtail *Motacilla* (*flava*) *pygmaea*. One 1cy female ringed Tsor'a 1 December 2011 (Y Kiat). Fourth record.

Rustic Bunting *Emberiza rustica*. One Uvda valley 21 November 2012 (J Smith *et al*).

Snow Bunting *Plectrophenax nivalis*. One 1cy male Acre north beach 20 December 2013–18 February 2014 when Y Baser reported it had been killed by Common Kestrel *Falco tinnunculus* (D Kotter, T Khan *et al*). First record.

The following claims were rejected: Sooty Tern *Onychoprion fuscatus* (25 July 2013 Eilat north beach). Rufous Turtle Dove *Streptopelia* (*orientalis*) *meena* (November 2010 Eilat, November 2013 Hula).

JORDAN

The Jordan Bird Records Committee comprises Fares Khoury (secretary), Richard Porter, Ian Andrews, Feras Rahahleh and Khaldun Al-Omari. Claims should be sent to Fares Khoury at avijordan2000@yahoo.com.

KUWAIT

The Kuwait Ornithological Rarities Committee comprises Mike Pope (chair), AbdulRahman Al-Sirhan (secretary), Pekka Fagel, Oscar Campbell (external adjudicator), Peter Kennerley (external adjudicator) and Brian Foster (honorary member). Claims should be sent to the secretary at alsirhan@alsirhan.com.

OMAN

The Oman Bird Records Committee comprises Jens Eriksen (recorder), Ian Harrison, Dave Sargeant, Graham Searle, John Atkins, Peter Cowan, Waheed Al Farsi, Zahran Al Abdulasalam and Manal Al Kindi. Claims should be sent to Jens Eriksen hjoman@gmail.com from whom claim forms can be obtained. OBRC has accepted the following records since the report in *Sandgrouse* 37(1).

Plate 8. Purple Swamphen *Porphyrio porphyrio* 2 October 2014, Al Ansab wetland, Oman. © *H & J Eriksen*

Plate 9. Black-backed Citrine Wagtail *Motacilla citreola calcarata* 25 February 2015, Almouj golf course, Muscat, Oman. © *H & J Eriksen*

Lesser Whistling Duck *Dendrocygna javanica.* Eleven Ash Shuwaymiyyah 15 December 2014 (I Hristov). Two Duqm 21–24 December 2014 (J Atkins). One Khawr Al Mughsayl 7 May 2015 (C Lazaro & D Mouton). Sixth–eighth records.

Matsudaira's Storm Petrel *Oceanodroma matsudairae.* One 10 km off Muscat 19 August 2013 (H & J Eriksen). First record.

Grey-headed Swamphen (formerly Purple Swamphen) *Porphyrio* [*porphyrio*] *poliocephalus.* One Al Ansab wetland 21 September 2014–16 April 2015 (M Al Amri, M Al Kindi *et al*, Plate 8). Sixth record.

Red Knot *Calidris canutus.* One in summer plumage Barr Al Hikman 13 November 2014 (T Fijen *et al*). Sixth record, first for 25 years.

African Skimmer *Rynchops flavirostris.* Two Taqah beach 6 January–26 February 2015, then Khawr Rawri 1 May 2015 (M Ullman *et al*). First record.

Black Tern *Chlidonias niger.* One Raysut 24 October–5 December 2014 (B De Schutter *et al*). Ninth record.

Brown Shrike *Lanius cristatus.* One Qatbit 4–5 November 2014 (M Ullman *et al*). Second record.

Ashy Drongo *Dicrurus leucophaeus.* One Qatbit 24–28 November 2014 (M Ullman *et al*). First record.

Calandra Lark *Melanocorypha calandra.* Two Sohar 6–20 February 2015 increasing to four on 21 February (J Atkins *et al*). First record.

Taiga Flycatcher *Ficedula albicilla.* One Qatbit 12 December 2014 (R Tovey) and one Ayn Tobroq 5 January 2015 (M Ullman). Sixth & seventh records.

Black-backed Citrine Wagtail *Motacilla citreola calcarata.* Adult male Almouj golf course, Muscat, 25 February 2015 (H & J Eriksen, Plate 9). Fourth record.

Amur Wagtail *Motacilla alba leucopsis.* Adult male Sohar 8 October 2013 (J Atkins). Second record.

QATAR

Qatar Bird Records Committee members are Keith Betton, Jamie A Buchan (Recorder), Neil G Morris (Secretary), Richard F Porter (Hon President), Simon J Tull. Claims should be sent to jamie_buchan@yahoo.com. QBRC has accepted the following records since the report in *Sandgrouse* 37(1).

Grey-headed Swamphen *Porphyrio* [*porphyrio*] *poliocephalus.* One Al Kharaana lagoons 15 September 2014 (D Bishop). Second record.

Common Blackbird *Turdus merula.* One Al Shamal park 20 December 2014–at least 6 February 2015 (D Bishop, J Thompson, D Sanders). Third record.

Thrush Nightingale *Luscinia luscinia.* One Al Shamal park 20 September 2014 (D Bishop). Tenth record.

Buff-bellied Pipit *Anthus* (*rubescens*) *japonicus.* At least six Al Shamal park 25 December 2014–at least 28 February 2015 (D Bishop, J Thompson, D Sanders). First record.

Brambling *Fringilla montifringilla.* One Museum of Islamic Art park, Doha, 6 December 2014 (JN Hardacre, G Saunders). First record.

UNITED ARAB EMIRATES

The Emirates Bird Records Committee comprises the following voting members: Oscar Campbell (chair), Mark Smiles (secretary), Simon Lloyd, Huw Roberts, Neil Tovey, Tommy Pedersen (UAE bird recorder). Ahmed Al Ali and Peter Hellyer are non-voting members. Records are circulated and assessments published three times per year, see www.uaebirding.com/ebrc.html. Decisions on assessments, plus EBRC's constitution and information about the assessment process and downloadable report forms are all available at the same location. Claims, preferably on the report forms, should be sent to ebrcuae@gmail.com or to Tommy Pedersen tommypepe63@gmail.com. The UAE Bird Checklist, in both short and annotated forms, is available at www.uaebirding.com/uaechecklist.html together with recently published reports for 2010–2013. EBRC has accepted the following records since the report in *Sandgrouse* 37(1).

Eastern Cattle Egret *Bubulcus coromandus.* One adult Wamm farms 20 March 2015 (M Smiles *et al*, Plate 10), possibly a returning bird. A record, recently submitted and accepted, near Green Mubazzarah, Al Ain, 23 April 2009 (P Arras) predates the (previous) first accepted record by almost four months.

Plate 10. Eastern Cattle Egret *Bubulcus coromandus* 20 March 2015, Wamm farms, UAE. © *M Smiles*

Plate 11. Red-headed Bunting *Emberiza bruniceps* 9 May 2015, Al Mamzar park, UAE. © *M Smiles*

Watercock *Gallicrex cinerea.* One exhausted, Nad al-Sheba veterinary hospital area 5–6 November 2014 (G Tonen, D Le Mesurier *et al*) caught and released at Al Warsan lakes 6 November. First record.

Black Drongo *Dicrurus macrocercus.* One Discovery gardens 7 April 2015 (R Zalewska). Sixth record and the fifth since January 2012.

Ashy Drongo *Dicrurus leucophaeus.* One Wadi Bih 3–4 December 2014 (J Mottishaw, P Hill, M Smiles, KA Monrad) and one Al Mamzar park 1 January at least–7 February 2015 (K Al Sharhan, SP LLoyd, M Smiles *et al*). Eighth and ninth records. Almost annual since first record 2006.

Hooded Crow *Corvus cornix capellanus.* One Al Rafa'a bridge and beach 1 March 2015 (L Segelström). Second record, but possibly a returning bird as first record was from a nearby location, November 2012–January 2013.

Fan-tailed Raven *Corvus rhipidurus.* Two at Al Samha petrol stations 13 December 2014 (K Al Dhaheri). Second record, the first 2006.

Calandra Lark *Melanocorypha calandra.* One Wamm farms 9 May 2015 (M Smiles). Ninth record, but only the second outside the late October–early February period.

Large-billed Leaf Warbler *Phylloscopus magnirostris.* One Al Mamzar park 11–12 October 2014 (M Smiles *et al*). First record.

Green Warbler *Phylloscopus nitidus.* One Al Mamzar park 11 October 2014 (M Smiles) and another there 25 October–6 November 2014 (M Smiles, A Al Ali *et al*). Twelfth and thirteenth records, but the first since October 2005–November 2007 when there were eight records.

Taiga Flycatcher *Ficedula albicilla.* One Al Mamzar park 21–31 March 2015 (M Smiles *et al*). Seventh record but only second spring record; recorded annually since 2012.

Pied Stonechat *Saxicola caprata.* One first-winter Abu Dhabi golf and equestrian club 29 November 2014–16 March 2015 (OJ Campbell *et al*). Sixteenth record, but first since January 2011, the second bird to overwinter and the third away from the northern UAE/east coast.

Red-headed Bunting *Emberiza bruniceps.* One Al Mamzar park 9 May 2015 (M Smiles, Plate 11). Eighth record and first in May.

ACKNOWLEDGEMENTS

The following assisted in the compilation of this review: Colin Richardson (Cyprus), Avner Cohen and Yoav Perlman (Israel), Jens Eriksen (Oman), Neil Morris (Qatar), Oscar Campbell and Tommy Pedersen (United Arab Emirates).

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Letter to the Editor

Unsubstantiated claims concerning the breeding biology of the Basra Reed Warbler *Acrocephalus griseldis*

We wish to draw attention to a letter that we, together with eleven other ornithologists, have written to the editor of *Zoology in the Middle East* (Porter *et al* 2015a) expressing serious concern about details of the breeding biology of the Basra Reed Warbler *Acrocephalus griseldis* in Iraq as claimed by Al-Sheikhly *et al* (2013). We feel that this and the subsequent published correspondence (Al-Sheikhly *et al* 2015, Porter *et al* 2015b) should be consulted by anyone with an interest in the study and conservation of this globally endangered species. The editor-in-chief of *ZME*, Dr Max Kasparek, later published a brief introduction to the so-called 'debate' (Kasparek 2015).

Al-Sheikhly *et al* (2013) reported figures and drew conclusions that, in our opinion, are impossible to achieve without undertaking a long-term trapping and colour-ringing programme to allow identification of individual male and female birds. They claim *inter alia* that "971 nests of Basra Reed Warbler were studied", most over the two-year period 2006–2007, and that "males are often polygynous (42.9%, n=317 observed males)." There is however almost no mention in the paper of the methods and resources employed to gather such data. Furthermore, Al-Sheikhly *et al* claimed that "the identification of male and female Basra Reed Warblers was unmistakable in the field," which we contest is impossible, given that the species like all other Western Palearctic *Acrocephalus* cannot be sexed visually, only through in-hand examination and perhaps biometric data, which the authors of the study did not attempt. Neither is there any explanation of how counts were carried out and extrapolated to population figures given for Iraq's major marshland areas. Following questioning, the authors admit "that the occurrence of polygyny needs to be confirmed by a more comprehensive study." If their precise figures as originally presented lack credibility, then it draws into question any of the paper's other results. We feel that these issues should have been picked up by the editor and referees at the paper's review stage.

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Peter Kennerley, David Pearson
(authors Reed and Bush Warblers), Richard Porter
(author Birds of the Middle East), UK.

Around the Region

Ian Harrison & Chris Lamsdell (compilers)

Records in *Around the Region* are published for interest only; their inclusion does not imply acceptance by the records committee of the relevant country. All records refer to 2015 unless stated otherwise.

Records and photographs for *Sandgrouse* 38(1) should be sent by 15 December 2015 to atr@osme.org.

CYPRUS

The largest flock of **Ruddy Shelducks** *Tadorna ferruginea* (21 birds) ever recorded in Cyprus was at Asprokremmos dam, 9 Jan. The fourteenth record of **White-headed Duck** *Oxyura leucocephala* was at Mia Milia water treatment plant 7 Feb. The first record of **Lesser Flamingo** *Phoenicopterus minor* (an adult bird) was at Kouklia reservoir, Famagusta, 12–16 May, together with a group of *c*60 **Greater Flamingos** *Phoenicopterus roseus*. Four **Black Storks** *Ciconia nigra* were at Akrotiri salt lake 22 Mar (normally only singles seen). First record of **Striated Heron** *Butorides striata*, Zakaki marsh, Akrotiri, late October 2014 present until 11 Feb (but pursued by intrusive photographers who possibly contributed to its demise). A **Lesser Spotted Eagle** *Aquila pomarina*, Polis, Akamas, 14 May (only spring record of this rather rare migrant) while a single '**Tundra**' **Peregrine** *Falco peregrinus calidus* was at Akrotiri gravel pits 23 Feb–31 Mar (Plates 1 & 2).

One **Baillon's Crake** *Porzana pusilla* Zakaki marsh 15–28 Mar and 8–11 Apr (Plate 3). **Demoiselle Crane** *Anthropoides virgo* is usually rare in spring but three at Akrotiri GP 13 Mar while 32 Goudi 16 Mar, 27 Lady's Mile 21 Mar and four Lady's Mile 1 Apr. One **Eurasian Oystercatcher** *Haematopus ostralegus* Spiros beach 28 Mar (fewer than 20 records in last ten years). A male **Caspian Plover** *Charadrius asiaticus* Mandria 9–18 Apr (34th record). One **Eurasian Dotterel** *Charadrius morinellus* Akrotiri salt lake 11 Apr, up to four Larnaca desalination fields 11–16 Apr, two Lady's Mile 13 Apr, one Mandria 14–18 Apr (Plate 4); species not recorded every year.

Plate 1. 'Tundra' Peregrine *Falco peregrinus calidus* (juvenile) 5 March 2015 Akrotiri GP, Cyprus. © *Raija Howard*

Plate 2. 'Tundra' Peregrine *Falco peregrinus calidus* (juvenile) 22 March 2015 Akrotiri GP, Cyprus. © *John East*

Plate 3. Baillon's Crake *Porzana pusilla* 10 April 2015, Zakaki marsh, Cyprus. © *Raija Howard*

Plate 4. Eurasian Dotterel *Charadrius morinellus* 15 April 2015, Mandria beach, Cyprus. © *Matt Smith*

Plate 5. Cream-coloured Courser *Cursorius cursor* 8 April 2015, Lady's Mile, Cyprus. © *Raija Howard*

Plate 6. Black-legged Kittiwake *Rissa tridactyla* 6 December 2014, Larnaca, Cyprus. © *Stavros Christodoulides*

A **Red Knot** *Calidris canutus* Lady's Mile 16 May. Record number of **Bar-tailed Godwits** *Limosa lapponica* (32) Akrotiri salt lake 26 Apr with two remaining at nearby Lady's Mile to 4 May; all previous records have been singles or pairs (25th record). 18 **Whimbrels** *Numenius phaeopus* Lady's Mile 2 Apr, a record number of this scarce migrant. A **Cream-coloured Courser** *Cursorius cursor* Lady's Mile 31 Mar–10 Apr (Plate 5) with different bird there 28 Apr; this species is a less than annual spring migrant. *c*200 **Collared Pratincoles** *Glareola pratincola* over Zakaki marsh 20 Apr, a noteworthy number while a **Black-winged Pratincole** *Glareola nordmanni* was at Akrotiri salt lake 28 Apr (38th record since 1993). The seventh record of **Black-legged Kittiwake** *Rissa tridactyla* still present Larnaca until 4 Jan (Plate 6). Fourth record of **Pomarine Skua** *Stercorarius pomarinus* Curium bay, Akrotiri peninsula, 21 May while one **Arctic Skua** *S. parasiticus* off cape Greco 29 Mar and one Mandria 9 Apr (fewer than 50 records since 1957).

There was an extraordinary influx in January, during very cold conditions in Turkey, of **Black-bellied Sandgrouse** *Pterocles orientalis* though many reported shot (at least 17). Highest number flock of *c*35 Livera, cape Kormakitis, 11–24 Jan with 30+ at Agios Sozomenos/Geri buffer zone mid Jan; last report was five 6 Mar Akrotiri GP. Fewer than ten previous reports 1993–2014. Single **Laughing Doves** *Stigmatopelia senegalensis* Germasogeia Potamos 8 Feb and Mandria 29 Mar, while three Kouklia mosque 4 Apr and two Kouklia, Diarizos river, 10 May. Five **Alpine Swifts** *Tachymarptis melba* Kensington cliffs 2 Feb was the earliest spring record for 25 years while three **Little Swifts** *Apus affinis* were at Zakaki marsh 12 Jan (Plate 7) and one Akhna Dam 15 Apr (15th & 16th records). A **White-throated Kingfisher** *Halcyon smyrnensis* Phasouri reed-beds 23 Jan and one **Pied Kingfisher** *Ceryle rudis* Lady's Mile 28 Mar–2 Apr, both rare visitors. 2015 was an exceptional year for **Blue-cheeked Bee-eaters** *Merops persicus*, a species which is less than annual: 16 Akrotiri environment centre 13 Mar, *c*20 Meneou beach 14 Mar, nine Vrysoulles 15 Mar, nine Rico's beach, Geroskipou, 15 Mar and smaller numbers at various locations to 14 Apr.

The only record this year of **Turkestan Shrike** *Lanius* (*isabellinus*) *phoenicuroides* was at Meneou pools area 12 Apr. Single **Bimaculated Larks** *Melanocorypha bimaculata*, a rare spring migrant, at cape Greco 25 Mar, Akrotiri salt lake 29 Mar, Avdimou 28 Mar, Mandria 27–28 Mar, Curium fish farm field

Plate 7. Little Swift *Apus affinis* 12 January 2015, Zakaki marsh, Cyprus. © *Raija Howard*

Plate 8. Olive-tree Warbler *Hippolais olivetorum* 27 April 2015, Anavargos hills, Cyprus. © *Matt Smith*

Plate 9. Wallcreeper *Tichodroma muraria* 8 November 2014, Avagas gorge, Cyprus. © *Matt Smith*

Plate 10. Hooded Wheatear *Oenanthe monacha* 13 April 2015, Paphos lighthouse, Cyprus. © *Colin Richardson*

30 Mar–9 Apr, Paphos lighthouse 31 Mar, Lady's Mile 8 Apr, Akrotiri GP 15 Apr and Mandria 15 Apr. The first record **Hume's Leaf Warbler** *Phylloscopus humei* Karpas peninsula 6 Apr while one **Olive-tree Warbler** *Hippolais olivetorum* Anavargos hills 27 Apr (Plate 8) was 30th record. One **Wallcreeper** *Tichodroma muraria* Avagas gorge 6 Feb (Plate 9) while a **Rose-coloured Starling** *Sturnus roseus* was at Akrotiri village 28 Apr and another Prodromi 11 May. One **Redwing** *Turdus iliacus* Bishop's pool 23 Jan was only 12th record in last ten years. The 19th record of **White-throated Robin** *Irania gutturalis* (a male) was at Paphos lighthouse 16 Apr. One male **Siberian Stonechat** *Saxicola maurus* cape Greco 30 Mar–4 Apr, two females there 1 Apr and a male Mandria 4–5 Mar. An influx of **Hooded Wheatears** *Oenanthe monacha* (formerly very rare migrant): one female cape Greco 12–14 Apr, a male Paphos lighthouse 13 Apr (Plate 10), six females Latsi beach, Polis, 28 Apr, one

Pegeia 1 May and one Paphos lighthouse 2 May.

The fifteenth record of **Pale Rockfinch** *Carpospiza brachydactyla* was at Livera 18 Mar while the 16th record of **Rock Sparrow** *Petronia petronia* was at cape Greco 5–16 Mar. Three **Richard's Pipits** *Anthus richardi* Paphos lighthouse 10 Mar and two 14 Apr while one near Phasouri reed-beds 12 Mar. A **Eurasian Crimson-winged Finch** *Rhodopechys sanguineus* in the Mandria beach area from 14 Jan, with two there 18–25 Jan; one Paphos lighthouse 12 Mar (second and third records). Single **Trumpeter Finches** *Bucanetes githagineus* cape Greco 15 Mar and 30 Mar–1 Apr. Largest influx on record of **Hawfinches** *Coccothraustes coccothraustes*: up to 20 Paphos region and as far east as Akrotiri until early April, max 33 Armou 10 Jan. One **Yellowhammer** *Emberiza citrinella* Akrounta creek 27 Jan, *c*25 Troodos summer camp 1 Feb and two Troodos visitor centre 6 Feb. Single **Eastern Cinereous Buntings** *Emberiza cineracea* Anarita park 16 Mar, cape Greco 20 Mar, Mavrokolymbos dam 23 Mar and cape Kormakitis 6 Apr. Fourth record of **Little Bunting** *Emberiza pusilla*, near Nicosia 15 Apr.

EGYPT

An **African Pied Wagtail** *Motacilla aguimp* singing 29 Jan in the harbour of the Aswan inter-dam reservoir.

ISRAEL

A **Lesser White-fronted Goose** *Anser erythropus* remained at Kfar Barukh, Jizreel valley throughout Jan while a **Bean Goose** *Anser fabalis* of the *fabalis* group was at Agamon Hula 2–17 Mar (fourth record). A **Red-billed Teal** *Anas erythrorhyncha*, Idan, north Arava, 30–31 Jan, of unknown origin; one previous record from 1958. Three **Velvet Scoters** *Melanitta fusca* off Ashdod, Mediterranean coast, 17 Feb, and what was probably the same group but four birds, off Ashkelon 21 Feb (eighth record). A **Black-throated Diver** *Gavia arctica* off Jaffa 8 Jan while a **Great Shearwater** *Puffinus gravis* there 6 Jan was the 7th record. One **Red-necked Grebe** *Podiceps grisegena* Eilat 3–17 May was fifth record. A **Brown Booby** *Sula leucogaster* off Eilat's North beach from 5 Feb for a few days. A **Lesser Flamingo** *Phoeniconaias minor*, second record, remained at Eilat thoughout Jan.

A record 45 000 **European Honey Buzzards** *Pernis apivorus* counted by IBRCE at Eilat 2–3 May. Three **Crested Honey Buzzards** *Pernis ptilorhynchus* migrated over Eilat and south Arava 14–27 Apr, with a further 15 seen May. A second-year **Yellow-billed Kite** *Milvus aegyptius* picked up injured near Rahat, north Negev, 5 Apr and taken into care (fourth record). One juvenile **Bateleur** *Terathopius ecaudatus* near Lakhish, south Judean plains, 30 Jan and a separate juvenile migrating over Kisra, western Galilee, 31 Mar. Also an immature near Nakhla, south coastal plains, 30 May (9th–11th records). **Caspian Plovers** *Charadrius asiaticus* at Yotvata 12 Mar, IBRCE 27 Mar, another Yotvata, 31 Mar–4 Apr with another three there 10 Apr. One **Grey Phalarope** *Phalaropus fulicarius* first seen 31 Dec 2014 Timorim remained until 8 Jan, while another at Mishmar Haemek, Jizreel valley, on same date. A **Black-legged Kittiwake** *Rissa tridactyla* Eilat 21–22 Apr and one **Audouin's Gull** *Ichthyaetus audouinii* off Jaffa 8 Jan. Single **Lesser Crested Terns** *Thalasseus bengalensis* off Jaffa 6 Jan and at Rosh Hanikra, north Mediterranean coast, 13 Jan (latter wore ring and probably originated northwest Africa). One **Bridled Tern** *Onychoprion anaethetus* Atlit, Carmel coast, 25–29 May while a **White-cheeked Tern** *Sterna repressa* was off Eilat's North beach throughout Feb.

An **Egyptian Nightjar** *Caprimulgus aegyptius* Yotvata 28 Feb. One female **Grey Hypocolius** *Hypocolius ampelinus* Ashkelon, south coastal plains, 26 Mar–14 Apr was the first record away from Eilat and south Arava; another Eilat 18 May. One **Steppe Grey Shrike** *Lanius* (*meridionalis*) *pallidirostris* Ashdod 10 Jan. Four **Dunn's Larks** *Eremalauda dunni* at several sites along the north Mediterranean coast 28–31 Mar while another Km20 saltpans, Eilat, 5 Apr, and five Se'ifim plains 6–10 Apr. **Oriental Skylarks** *Alauda gulgula* during March Eilat, Yotvata and Kfar Ruppin until at least 20 Mar. Male **Black-crowned Sparrow-Lark** *Eremopterix nigriceps* Se'ifim plains, Eilat mountains 5–13 Apr. A **Yellow-browed Warbler** *Phylloscopus inornatus* JBO 12 Feb. **Black Scrub Robins** *Cercotrichas podobe* in Eilat (11 Mar–10 Apr), Samar (11 Mar–4 Apr) and Yotvata (11 Mar); one Km20

saltpans, Eilat, 20 Apr. Subsequently first breeding records for Israel: two pairs north of Eilat successfully producing one and two fledglings respectively. A possible **Stejneger's Stonechat** Saxicola [torquatus] stejnegeri ringed IBRCE 30 Mar (potentially first record). A **Pied Wheatear** *Oenanthe pleschanka* Kahal, east Galilee, 16 Apr. One female **Kurdistan Wheatear** *Oenanthe xanthoprymna* on mt Gilboa until at least 20 Mar while a male Tel Krayot near Arad, north Negev, 6 Mar. One **Pine Bunting** *Emberiza leucocephalos* Jerusalem 8 Jan onwards.

KAZAKHSTAN

One **Dalmatian Pelican** *Pelecanus crispus* Сорбулак, Almaty oblast, 27 Dec 2014 while one **Indian Pond Heron** *Ardeola grayii* Almatinskaja oblast 13 Dec 2014. A **Bar-tailed Godwit** *Limosa lapponica* Sorbulak lake, Almaty region, 29 Apr while a **Jack Snipe** *Lymnocryptes minimus* Almatinskaja oblast 25 Jan. One **Glaucous Gull** *Larus hyperboreus* Sorbulak lake, Almaty region, 22 Mar while a **Mediterranean Gull** *Larus melanocephalus* present 19 May east Caspian sea, 70 km northwest of Buzachi peninsula. A **Greater Short-toed Lark** *Calandrella brachydactyla* and one **Desert Wheatear** *Oenanthe deserti* Kanshengel village, Almaty region, 3 Jan. A **Woodchat Shrike** *Lanius senator* Aktau 3 May. One **Rustic Bunting** *Emberiza rustica* Almatinskaja oblast 31 Jan and a **Lapland Longspur** *Calcarius lapponicus* Актау 43км on 13 Feb. One **Godlewski's Bunting** *Emberiza godlewskii* VKO Katon-Karagay 17 Feb.

KUWAIT

Flock of 30 **Greater White-fronted Geese** *Anser albifrons* Jahra pools reserve (JPR) 26 Jan, part of an influx into Arabia but only fourth record for Kuwait. Second record of **Red-breasted Merganser** *Mergus serrator* occurred JPR 11 Feb when three birds were seen. Third record **Sooty Shearwater** *Puffinus griseus*, Khiran 23 May and two birds JPR 25 May. One **Western White Stork** *Ciconia ciconia* JPR 28 Jun and a **Great White Pelican** *Pelecanus onocrotalus* there 15 Jun, while the first record of **Masked Booby** *Sula dactylatra* flew over the same location 1 Apr. The 14th record of **Spur-winged Lapwing** *Vanellus spinosus* was at JPR 4 Mar while the eighth record of **Grey Phalarope** *Phalaropus fulicarius* was at Zayed park 28 Feb. Sixth record **Little Gull** *Hydrocoloeus minutus* JPR 1 Apr while two **Arctic Terns** *Sterna paradisaea* there 15 Jun (also sixth record).

On 10 Apr a **Dunn's Lark** *Eremalauda dunni* seen at Al Abraq (first record for over four years). Two **Pale Crag Martins** *Ptyonoprogne (fuligula) obsoleta* Jal Al Zour 14 Jan (ninth record) while first record of **Plain Leaf Warbler** *Phylloscopus neglectus* Mutla'a ranch 15 Apr. Fourth record of **Grey-necked Bunting** *Emberiza buchanani* Al Abraq 24 Jan while one **Red-headed Bunting** *Emberiza bruniceps* Mutla'a ranch 24 Apr (last sighting 2005).

LEBANON

An adult male **Common Rosefinch** *Carpodacus erythrinus* shot near Damour, south of Beirut, 7 May; first record.

OMAN

Two **Eastern Greylag Geese** *Anser anser rubirostris* Khawr Dirif 9 Jan while **Greater White-fronted Goose** *Anser albifrons* records came from various locations in the Salalah area 7 Jan–28 Apr, max 33 on 2 Feb Khawr Rouri, with six A'Shuweimiyah 1 Feb and three Shisr 14 Feb. 23 **Red-billed Tropicbirds** *Phaethon aethereus* off Raysut 11 Mar with 16 off the cliffs near Khawr Rouri 28 Apr, 14 off Ras Janjari 1 May and singles off Ras Al Hadd and Ras Al Khabbah 13 Jun. **Abdim's Storks** recorded Raysut sewage treatment plant until 13 Feb, max 600+ on 7 Jan. The **African Sacred Ibis** *Threskiornis aethiopicus* in the Salalah area until 31 Dec 2014 was last seen at Khawr Rouri 22 May. 12 **Yellow Bitterns** *Ixobrychus sinensis* (new max) East Khawr 28 Apr. One **Crested Honey Buzzard** *Pernis ptilorhynchus* Sohar 27 Mar and one Jarziz farm 29 Apr. A **Black-winged Kite** *Elanus caeruleus* Billa, near Ras A'Suwadi, 27 Feb and another Al Khabourah 27 Mar. Fifth record **Cinereous Vulture** *Aegypius monachus* Wadi Aydam 10 Feb. A **Verreaux's Eagle** *Aquila verreauxii* was photo'd 8 Feb, Jebel Samhan (Plate 11). Two **Amur Falcons** *Falco amurensis* Jarziz farm 29 Apr with four there 18 May and one 13 Jun when an immature bird was also at Ras Al

Plate 11. Verreaux's Eagle *Aquila verreauxii* 8 February 2015, Jebel Samhan, Oman. © *Hanne & Jens Eriksen*

Plate 12. Sociable Lapwing *Vanellus gregarius* 7 January 2015, Salalah, Oman. © *Hanne & Jens Eriksen*

Khabbah. First record **Eleonora's Falcon** *Falco eleonorae,* Jarziz farm 12 Jun. A Lanner Falcon *Falco biarmicus* Al Balid farm 9 and 21 Jan.

There was a small influx of **White-breasted Waterhens** *Amaurornis phoenicurus* with singles at Muntasar and Al Baleed farm 5 Jan with another Salalah 9 Jan and Khawr Rouri 10 Jan as well as a record from the north, Qurm park 12 Feb. The long-staying **Purple Swamphen** *Porphyrio porphyrio* at Al Ansab wetland seen regularly until 16 Apr. A **Red-knobbed Coot** *Fulica cristata* Khawr Rouri 22 May. One **Demoiselle Crane** *Anthropoides virgo* in the Salalah area 31 Dec 2014–9 Jan. The **Spur-winged Lapwing** *Vanellus spinosus* first recorded 5 Dec 2014 Raysut STP remained to 28 Apr. **Red-wattled Lapwing** *Vanellus indicus* is rarely recorded in the south so eight on 7 Jan at Raysut STP is unusual. **Sociable Lapwings** *Vanellus gregarius* recorded at Jarziz farm (22 on 7 Jan, Plate 12), Sahanawt farm (62 on 31 Jan) and Shisr (ten on 14 Feb). 450 **Pacific Golden Plovers** *Pluvialis fulva,* the highest concentration for two years, East Khawr 25 Feb. Three **Caspian Plovers** *Charadrius asiaticus* East Khawr 25 Feb. The **Long-billed Dowitcher** *Limnodromus scolopaceus* first seen Khawr Rouri 18 Nov

2014 remained there until 16 Mar. **One Long-toed Stint** *Calidris subminuta* (an uncommon visitor) Sahanawt farm 31 Jan. 28 **Cream-coloured Coursers** *Cursorius cursor* Dawkah farm 4 Jan (highest number for some years) while a **Black-winged Pratincole** *Glareola nordmanni* was at Khawr Taqah 1 Feb. The first record of **African Skimmer** *Rynchops flavirostris* (two birds) was at Taqah 6 Jan and still present 1 May. 1500 **Great Black-headed Gulls** *Ichthyaetus ichthyaetus* Quriyat 1 Jan. The **Black Tern** first recorded East Khawr 5 Oct 2014 and subsequently Raysut STP until 31 Dec was seen there 9 Jan and at Al Baleed park, Salalah, 1 Feb. One recorded Khawr Dirif 10 Feb. A **South Polar Skua** *Stercorarius maccormicki* off the Wave, Muscat, 24 Jun (fifth record) while the seventh record of **Long-tailed Skua** *S. longicaudus* seen on boat trip Muscat–Quriyat 29 May.

Single **Rufous Turtle Doves** *Streptopelia* (*orientalis*) *meena* Qatbit (3 Jan), Sahanawt farm (6 Jan), Shisr (6 Jan) and Raysut STP (7 Jan). Male Asian Koel *Eudynamys scolopaceus* Al Balid farm 5 and 9 Jan with other singles at Al Ansab wetland 3 Feb, Taqah 6 Feb, Shisr 10 and 23 Feb. The seventh record of Long-eared Owl *Asio otus* was at Al Balid farm 9 Jan. One **Short-eared Owl** *A. flammeus* Hayma sewer 3 Jan and another Sohar 27 Feb. Eight **Western Barn Owls** *Tyto* (*alba*) *alba* (new max) Sohar 20 Feb and single Khawr Dirif 12 Mar. The first **European Nightjar** *Caprimulgus europaeus* (a male) of the season at the Wave 24 Apr, seven Al Ghaftayn 26 Apr and eight Dawqah farm 27 Apr. **Egyptian Nightjars** *Caprimulgus aegyptius* at Sohar 20 Feb (three) and 15 Apr (two), Salalah (one) and Madinat Al Sultan Qaboos (one) both 27 Apr. An **Alpine Swift** *Tachymarptis melba* Sahanawt farm 9 Apr and one at nearby Jarziz farm 18 Apr while a **Little Swift** *Apus affinis* Ayn Hamran 26 Feb and one Sahanawt farm 17 Apr. 125 **European Rollers** *Coracias garrulus* Al Ghaftayn 26 Apr. A **Malachite Kingfisher** *Alcedo cristata* Khawr Rouri 1 Jun (ninth record). An early **Blue-cheeked Bee-eater** *Merops persicus* Qatbit 5 Jan.

One **Woodchat Shrike** *Lanius senator* and two **Masked Shrikes** *Lanius nubicus* Al Ghaftayn 4 Apr while the third record of **Brown Shrike** *Lanius cristatus* at Qatbit 3–5 Jan. The eighth record of **Black Drongo** *Dicrurus macrocercus* Ayn Hamran 6 Jan while 25 **Grey Hypocoliuses** *Hypocolius ampelinus* Muday 6 Jan, rising to 34 on 13 Mar. Two **Calandra Larks** *Melanocorypha calandra* Sohar 6–20 Feb increasing to four on 21 Feb (first record) while 200 Bimaculated Larks *M. bimaculata* there 20 Feb. Two **Bar-tailed Larks** *Ammomanes cinctura* Shisr 20 Feb. The fourth record of **Pale Martin** *Riparia* (*riparia*) *diluta* at Raysut STP 7 Jan while a **Red-rumped Swallow** *Cecropis daurica* there 16 Apr. One **Yellow-browed Warbler** *Phylloscopus inornatus* Qatbit 3–5 Jan and one Ayn Tobruk 5 Jan. A **Hume's Leaf Warbler** *P. humei* Qatbit 4 Jan, increasing to three 9 Jan. One **Hume's Whitethroat** *Sylvia althaea* Al Mughsayl 4 Jan (fourth record). A **Brahminy Starling** *Sturnia pagodorum* Tawi Atayr 8 Jan while over 400 **Rose-coloured Starlings** *Pastor roseus* Jarziz farm 7 Feb and five **Common Starlings** *Sturnus vulgaris* Sahanawt farm 6 Jan. Two **Ring Ouzels** *Turdus torquatus* were seen on Sayq plateau 2 Jan while 11 **Rufous-tailed Scrub Robins** *Cercotrichas galactotes* Al Ansab wetland 20 Apr and 15 on 27 Apr. Third record **Kurdistan Wheatear** *Oenanthe xanthoprymna* Khawr Rouri 10 Jan while an **Eastern Black-eared Wheatear** *Oenanthe* (*hispanica*) *melanoleuca* Dawqah farm 11 Mar. Over 100 **Spotted Flycatchers** *Muscicapa striata* at Dawqah farm 27 Apr. A **Taiga Flycatcher** *Ficedula albicilla* Ayn Tobruq 5 Jan but not clear if this was the same as that reported at this location Nov 2014. 200 **Pale Rockfinches** *Carpospiza brachydactyla* Sohar 20 Mar and 300 on 10 Apr. Over 300 **Yellow Wagtails** *Motacilla flava* Khawr Taqah 12 Mar including *lutea* (1), *feldegg* (5), *beema* (10). Four **Richard's Pipits** *Anthus* (*novaeseelandiae*) *richardi* Jarziz farm 25 Feb while an Olive-backed Pipit *Anthus hodgsoni* Al Baleed farm 9 Jan.

QATAR

First time breeding proven for **Western Cattle Egret** *Bubulcus ibis* (several pairs), **Saunders's Tern** *Sternula* (*albifrons*) *saundersi* (six or more pairs) and **Pin-tailed Sandgrouse** *Pterocles alchata* (one or more pairs). A female 'honey buzzard', over-wintering at Doha golf course 17 Nov 2014–9 Mar 2015, finally identified as a **European Honey Buzzard × Crested Honey Buzzard** *Pernis apivorus* × *P. ptilorhynchus* hybrid. A kite on the north coast 22 Apr

appeared to be an intergrade **Black Kite** × **Black-eared Kite** *Milvus* (*migrans*) *migrans* × *M.* (*m.*) *lineatus*. 20 **Lesser Kestrels** *Falco naumanni* Irkaya farm 3 Apr while a **Eurasian Hobby** *F. subbuteo* there 26 Jun.

Five **Pied Avocets** *Recurvirostra avosetta* IF 29 May and a **White-tailed Lapwing** *Vanellus leucurus* Sailiya (west) sewage works 22 Apr. One **Broad-billed Sandpiper** *Limicola falcinellus* IF 4 May, two **Red-necked Phalaropes** *Phalaropus lobatus* there 5 Apr and 12 **Collared Pratincoles** *Glareola pratincola* 26 Jun. Pale phase **Arctic Skua** *Stercorarius parasiticus* Al Wakrah beach 28 Apr. Four **White-winged Terns** *Chlidonias leucopterus* IF 19 June while a **Common Cuckoo** *Cuculus canorus* was there 5 Jun. Two **Eurasian Scops Owls** *Otus scops* 21 Mar and four **Egyptian Nightjars** *Caprimulgus aegyptius* 26 Jun IF. A **European Nightjar** *C. europaeus* Doha 20 Oct–15 Dec 2014. Two **White-throated Kingfishers** *Halcyon smyrnensis* Sailiya (west) sewage works Nov 2014–Mar 2015. Eight **Eurasian Crag Martins** *Ptyonoprogne rupestris* Abu Nahkla 28 Mar and three IF 4 Apr. Three **White-throated Robins** *Irania gutturalis* IF 8 April while a male **Siberian Stonechat** *Saxicola maurus* ssp *variegatus* there 20 Feb. A **White-crowned Wheatear** *Oenanthe leucopyga* at IF 30 May–2 Jun. One **Blue Rock Thrush** *Monticola solitarius* 21 Mar and 22 **Pale Rockfinches** *Carpospiza brachydactyla* 5 Apr, both IF. Six **Red-breasted Flycatchers** *Ficedula parva* Sealine beach resort 24–28 Oct 2014.

SAUDI ARABIA

Twenty plus **Lesser Flamingos** *Phoeniconaias minor* South Jizan wastewater treatment wetlands (WTW) 7 Feb–4 Mar and 50+ **Abdim's Storks** *Ciconia abdimii* there 7 Feb. A **Striated Heron** *Butuoides striata* at Sabkhat Al Fasl (SAF) 7 Jun. One **Black-headed Heron** *Ardea melanocephala* South Jizan WTW 6 Feb with twelve Sabya WTW 7 Feb. A female **European Honey Buzzard** *Pernis apivorus* Deffi park, Jubail, 24 Jan. Two female **Crested Honey Buzzards** *P. ptilorhynchus* remained together at Dhahran Hills until 19 Jan with one remaining to 22 Apr with another female at Jeddah 10 Feb. A **'Tihama' Shikra** *Accipiter* (*badius/brevipes*) *sphenurus* Wadi Thee Ghazal, near Taif, 2 May. 73 **Grey-headed Swamphens** *Porphyrio* (*porphyrio*) *poliocephalus* SAF 29 May (new max). One adult **Red-knobbed Coot** *Fulica cristata* SAF 22 May, first record. Two **Red-wattled Lapwings** *Vanellus indicus* gulf of Salwa 21 Apr. Flock of at least 30 **Sociable Lapwings** *Vanellus gregarius* in a field just south of Tabuk 20 Feb while a satellite-tagged bird wintered near the Jordan border. One **Jack Snipe** *Lymnocryptes minimus* King AbdulAziz University of Science & Technology (KAUST) 21 Mar. A **Black-winged Pratincole** *Glareola nordmanni* 120 km east of Madinah 10 Apr and one KAUST golf course 17 Apr. At least four **Little Terns** *Sternula albifrons* KAUST beach 8–15 May, an unusual occurrence on the west coast. An adult **Chestnut-bellied Sandgrouse** *Pterocles exustus* SAF 29 May (second documented record Eastern province). One **Great Spotted Cuckoo** *Clamator glandarius* south of Jizan 7 Feb–4 Mar while a **Bruce's Green Pigeon** *Treron waalia* at KAUST golf course 24 Apr was well north of its normal range. Three **White-throated Kingfishers** *Halcyon smyrnensis* SAF 2 Jan–13 Feb (Plate 13), one on small pond Dhahran Hills golf course 13–18 Feb and one Madinah area 11 Apr. A **Pied Kingfisher** *Ceryle rudis* Dhahran Hills golf course pond 13–18 Feb. One **Black-crowned Tchagra** *Tchagra senegalus* Wadi Thee Ghazal 30 April, a northerly record for this species. An adult **Long-tailed Shrike** *Lanius schach* Dhahran golf course 14 Feb–4 Apr (Plate 14), first record.

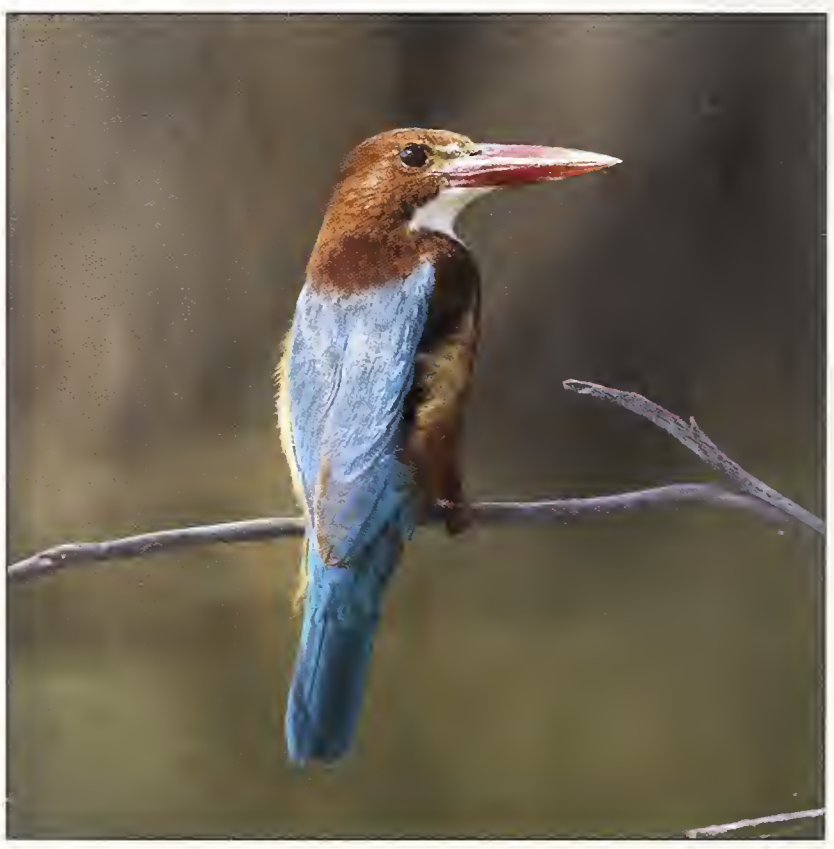

Plate 13. White-throated Kingfisher *Halcyon smyrnensis* 23 January 2015, Sabkhat Al Fasl, Jubail, Eastern province, Saudi Arabia. © *Jem Babbington*

Plate 14. Long-tailed Shrike *Lanius schach* 4 April 2015, Dhahran Hills golf course, Dhahran, Eastern province, Saudi Arabia. © *Jem Babbington*

Four Eurasian **Penduline Tits** *Remiz pendulinus* SAF 5 Dec 2014 with two more Ash Shargiyah Development Company farm, Fadhili 27 Mar. A probable breeding pair of **Thick-billed Larks** *Ramphocoris clotbey* Riyadh area 1 May. First breeding **Barn Swallows** *Hirundo rustica* for Arabia were found at Al Hayer, near Riyadh, in February with a total of 13 nests. A **Siberian Chiffchaff** *Phylloscopus (collybita) tristis* trapped and ringed SAF 23 Jan. One **Common Grasshopper Warbler** *Locustella naevia* trapped and ringed SAF 27 Mar (Plate 15) while a **Sardinian Warbler** *Sylvia melanocephala* Haql 23 Feb. An adult male **Common Blackbird** *Turdus merula* trapped and ringed SAF 23 Jan (Plate 16) and remained until 20 Feb with another present at the same site 31 Jan. Male **Collared Flycatcher** *Ficedula albicollis* near Tabuk 11 April, a rare vagrant to western Saudi Arabia. An immature **White-crowned Wheatear** *Oenanthe leucopyga* KAUST 16 May. Both **Kurdistan Wheatear** *Oenanthe xanthoprymna* and **Red-tailed Wheatear** *Oenanthe chrysopygia* were at Wadi Rabigh 23 Jan. Two **Arabian Golden-winged Grosbeaks** *Rhynchostruthus percivali* near Taif 11 Jan and a single **Eurasian Siskin** *Spinus spinus* was on a farm just south of Tabuk 22 Feb.

TURKEY

Two new species were added to the country list during the period: **Bateleur** *Terathopius ecaudatus* and **Sykes's Warbler** *Hippolais rama,* see below for details.

The year started relatively mild but short periods of very cold weather brought a good array of species. Four spp of grey geese seen in the same view at Kızılırmak delta including a (**Taiga**) **Bean Goose** *Anser fabalis* 12–14 Feb and two **Lesser White-fronted Geese** *Anser erythropus* 12–21 Feb. Other birds escaping the northern cold were six **Greater Scaups** *Aythya marila* İğneada 10 Jan, one Lake Büyükçekmece 3 Jan and two Ondokuzmayıs harbour, Samsun, 24 Jan. A single **Common Eider** *Somateria mollissima* Fethiye bay 9 May was a good sighting for the south, with others at Riva 2 Jan and Kızılırmak delta 15 Jan. One **Common Scoter** *Melanitta nigra* Yeşilırmak delta 16 Jan together with a staggering 165 **Velvet Scoters** *Melanitta fusca* at the same location. More westerly sightings included two İğneada 10 Jan and one lake Küçükçekmece, İstanbul, 16 Jan. One **Goosander** *Mergus merganser* İğneada 10–11 Jan. Four **Horned Grebes** *Podiceps auritus,* all singles, were recorded: one each at Kızılırmak and Yeşilırmak delta 15 Feb and 15 Mar and two others in surprising locations, one in continental lake Mogan, Ankara, and one at lake Amik, Hatay, 2 Jan and 28 Feb respectively. **Lesser Flamingo** *Phoeniconaias minor* is now seen more regularly than in the past; one lake Kulu 9 Mar increasing to two 17 Mar.

The first record of **Bateleur** *Terathopius ecaudatus* (a second year bird) was detected in a suburb of Istanbul by chance through a photograph 2 May. **Black-winged Kites** *Elanus caeruleus* now regularly breed in southeast Turkey, although still in very low numbers; one pair Bozova, Şanlıurfa, 1 May where breeding in the last three years. A second **Red Kite** *Milvus migrans* Hatay in Subaşı 16 Jan, with another seen during a systematic count of migrant raptors on the Bosphorus 12 Mar. One **Short-toed Snake Eagle** *Circaetus gallicus* Samandağ, Hatay, 12 Jan was a rare wintering record. Increasing birding activity on the Mediterranean sea coasts revealed up to 6 **Little Bustards** *Tetrax tetrax* 11–18 Jan Boğazkent, Antalya and one Gediz delta 13 Jan. Three **Baillon's Crakes** *Porzana pusilla* were present Antalya 29 Mar–5 Apr. Two migrant flocks of **Demoiselle Cranes** *Grus virgo* were detected: 25 Kastamonu coast 21 Mar and 120 Göksu delta 22 Mar. A single second year bird accompanied **Common Cranes** *Grus grus* Kızılırmak delta 17–21 May. One **White-tailed Lapwing** *Vanellus*

leucurus on the Syrian border near Akçakale, Şanlıurfa, 8 Jan–3 Feb while a single **Broad-billed Sandpiper** *Limicola falcinellus*, probably an over-wintering bird, Göksu delta 14 Jan. A wintering **Pomarine Skua** *Stercorarius pomarinus* Yeşilırmak delta 16 Jan. A roost of 18 **Short-eared Owls** *Asio flammeus* near Vize, Kırklareli, 26 Jan and 2 Feb, while another roost of 11 Yedıkır dam lake, Amasya, 15 Feb.

The late March passage along the Mediterranean coast brought an adult **Steppe Grey Shrike** *Lanius* (*meridionalis*) *pallidirostris* in adult plumage at Boğazkent, Antalya, 24 Mar–2 Apr. One **Sand Martin** *Riparia riparia* Tuzla lake, Adana, 7 Feb was a very early arrival, as were ten **Common House Martins** *Delichon urbicum* Defne, Hatay, 28 Jan. Three **Blyth's Reed Warblers** *Acrocephalus dumetorum* were ringed Kızılırmak delta 8, 12 and 23 May. A **Booted Warbler** *Iduna caligata* Erdemli, Mersin, 5 Mar and another Birecik 18 May. The first record of **Sykes's Warbler** *I. rama* was recorded at Yüksekova Hakkari 18 May (the Euphrates valley seems to be good for spring passage). A single **Grasshopper Warbler** *Locustella naevia* Boğaçay, Antalya, 9 Apr (probably a commoner species than the extremely low number of sightings indicates). A single **Asian Desert Warbler** *Sylvia* (*nana*) *nana* Boğazkent, Antalya, 29 Mar–2 Apr. Several overshoot **Cyprus Wheatears** *Oenanthe cypriaca* present along the Mediterranean coast opposite Cyprus 13 Mar–6 Apr, and at Manavgat, much further away from Cyprus, 2 and 3 Apr. A good number of **Desert Wheatears** *Oenanthe deserti* recorded along Antalya coast Boğazkent–Manavgat, a total of 13 in 6 observations 29 Mar–4 Apr. One **Blyth's Pipit** *Anthus godlewski* Milleyha, Hatay, 25 Jan was the third sighting of this species at this site. The only interesting winter passerine was a single **Pine Bunting** *Emberiza leucocephalys* Kızılırmak delta 19 Feb.

UNITED ARAB EMIRATES

A pair of **Ferruginous Ducks** *Aythya nyroca* Al Ain 4 Jun suggested breeding; this species has oversummered, with suspected breeding, in the UAE in previous years. A boat trip off Kalba on the east coast 2 Jun produced a **Sooty Shearwater** *Puffinus griseus*. An **Eastern Cattle Egret** *Bubulcus* (*ibis*) *coromandus*, presumably the long-term returning bird since August 2009, Wamm farms (WF) 28 Mar with a second bird joining it 11 Apr. A **Red-billed Tropicbird** *Phaethon aethereus* seen from Delma island ferry 7 Feb. Up to seven **Crested Honey-Buzzards** *Pernis ptilorhynchus* together in Abu Dhabi at beginning of March. A **Black-winged Kite** *Elanus caeruleus* Dubai pivot fields (PF) 21 Mar while several **Black-eared Kites** *Milvus* (*migrans*) *lineatus* there January into February. A **Lappet-faced Vulture** *Torgos trachielotus* Jebel Hafeet 5 Mar while several Al Qudra 6 Apr (with one still there 18 Apr). Four **Montagu's Harriers** *Circus pygargus* Sila 3 Apr, an unusual number. A **Steppe Buzzard** *Buteo b. vulpinus* Ghantoot 7 Apr. Ras al Khor had 21 **Great Spotted Eagles** *Aquila clanga* 3 Jan with a *fulvescens* morph there 30 Jan. A **Steppe Eagle** *A. nipalensis* Ras al Khor 7 Feb and one near Al Dhaid 15 Mar. Up to three individual **Eastern Imperial Eagles** *A. heliaca* Al Qudra until mid January. A dark phase **Booted Eagle** *A. pennata* Dubai PF 3 Jan. 140 **Lesser Kestrels** *Falco naumanni* WF 24 Apr with 110 still present 8 May while a **Sooty Falcon** *F. concolor* over Jebel Hafeet 7 May.

As many as three **Corncrakes** *Crex crex* Al Qudra on several dates early May to the 9th. One **Little Crake** *Porzana parva* Al Wathba lake 20 Mar. **Asian Koels** *Eudynamys scolopaceus* Safa park 5 Feb and another two days later Mamzar park with a third Jebel Dhanna 20 Mar. Several **Eurasian Scops Owls** *Otus scops* in several locations 20–21 Mar while **Short-eared Owls** *Asio flammeus* recorded Sharjah 27 Feb, Bhalghelam island 20 Mar and over Abu Dhabi 18 Apr. Two **Little Swifts** *Apus affinis* Delma island 30–31 Jan while a single over Al Ain 13 Mar. A **European Bee-eater** *Merops apiaster* Dubai PF 3 Jan. Nine **Steppe Grey**

Plate 15. Common Grasshopper Warbler *Locustella naevia* 27 March 2015, Sabkhat Al Fasl, Jubail, Eastern province, Saudi Arabia. © *Jem Babbington*

Plate 16. Common Blackbird *Turdus merula* 23 January 2015, Sabkhat Al Fasl, Jubail, Eastern province, Saudi Arabia. © *Jem Babbington*

Shrikes *Lanius* (*meridionalis*) *pallidirostris* WF 11 Apr was a good count. A **Black Drongo** *Dicrurus macrocercus* Dubai 8 Apr. The second **Ashy Drongo** *D. leucophaeus* of the winter was seen in Mamzar park 4 Jan (although reported by a non-birder at least one week prior to this); the same, or possibly a different bird, was still present 13 Feb. A **Mesopotamian Crow** *Corvus* (*cornix*) *capellanus* photographed at Khor al Beida 1 Mar; although not seen last winter this may be the original bird from 2012–13. Flocks of **Hypocoliuses** *Hypocolius ampelinus* remained at Sir Bani Yas (up to 61) and Lulu island (up to 130) throughout February, with smaller numbers Delma island. The latest ever **Calandra Lark** *Melanocorypha calandra* WF 9 May. Two **Wire-tailed Swallows** *Hirundo smithii* Warsan 7 Feb with one remaining until 27th. A **Savi's Warbler** *Locustella luscinioides* WF 28 Mar and another Sila 3 Apr. A **Ring Ouzel** *Turdus torquata* Jebel Hafeet 10–22 Jan. A **European Robin** *Erithacus rubecula* Safa park 13 Feb while up to four **White-throated Robins** *Irania gutturalis* Mamzar park with singles at other locations during an influx of migrants after a severe dust-storm 3 Apr.

The **Pied Stonechat** *Saxicola caprata* in Abu Dhabi from 29 Nov 2014 remained until 22 Mar. Three male **Siberian Stonechats** *S. maurus* ssp *variegata* were at Sila 6 Mar. **Pied Wheatears** *Oenanthe pleschanka* were scattered round the Gulf coast from 24 Feb including a *vittata* Lulu island 27 Feb. **Eastern Mourning Wheatears** *O. lugens* Jebel Hafeet (one) 22 Jan (first seen December 2014) and Delma island (two) 30/31 Jan and 6 Feb. Single female **Semi-collared Flycatchers** *Ficedula semitorquata* Mamzar park (3 Apr) and Sila (4 Apr) after the 3 Apr dust-storm. One **Taiga Flycatcher** *F. albicilla* Mamzar park 21–31 Mar. A **Forest Wagtail** *Dendronanthus indicus* present for a few days Mushreef palace gardens, Abu Dhabi, from 16 Jan. A juvenile **Yellow Wagtail** *Motacilla* (*flava*) ssp photo'd Dubai PF 14 May, with a male **Black-headed Wagtail** *M.* (*flava*) *feldegg* there early June; this taxon has bred intermittently here since 2008. Single **Buff-bellied Pipits** *Anthus* (*rubescens*) *japonicus* WF 16 Jan and Dubai PF 30 Jan while birds first found December 2014 at Hamraniyah 2 Jan. A **Brambling** *Fringilla montifringilla* Safa park 11 Feb together with two **Eurasian Siskins** *Carduelis spinus*. What appeared to be a wild **Eastern Goldfinch** *C.* (*carduelis*) *carniceps* was at Green Mubazzarah 17–23 Feb. An **Eastern Cinereous Bunting** *Emberiza* (*cineracea*) *seminowi* Mamzar park 17 Mar with others at various locations after the 3 Apr dust-storm. One male **Red-headed Bunting** *Emberiza bruniceps* Mamzar park 9 May.

ACKNOWLEDGEMENTS

Cyprus: Colin Richardson; Israel: Yoav Perlman; Kazakhstan: www.birds.kz/; Kuwait: AbdulRahman Al Sirhan; Lebanon: Fouad Itani; Oman: Jens Eriksen (www.birdsoman.com/); Saudi Arabia: Jem Babbington (www.birdsofsaudiarabia.com), Philip Roberts; Turkey: Kerem Ali Boyla, Ali Atahan, Nizamettin Yavuz; United Arab Emirates: Oscar Campbell, Tommy Pedersen (www.uaebirding.com/uae_news.html).

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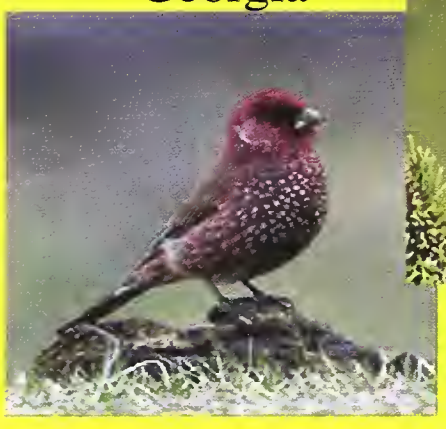

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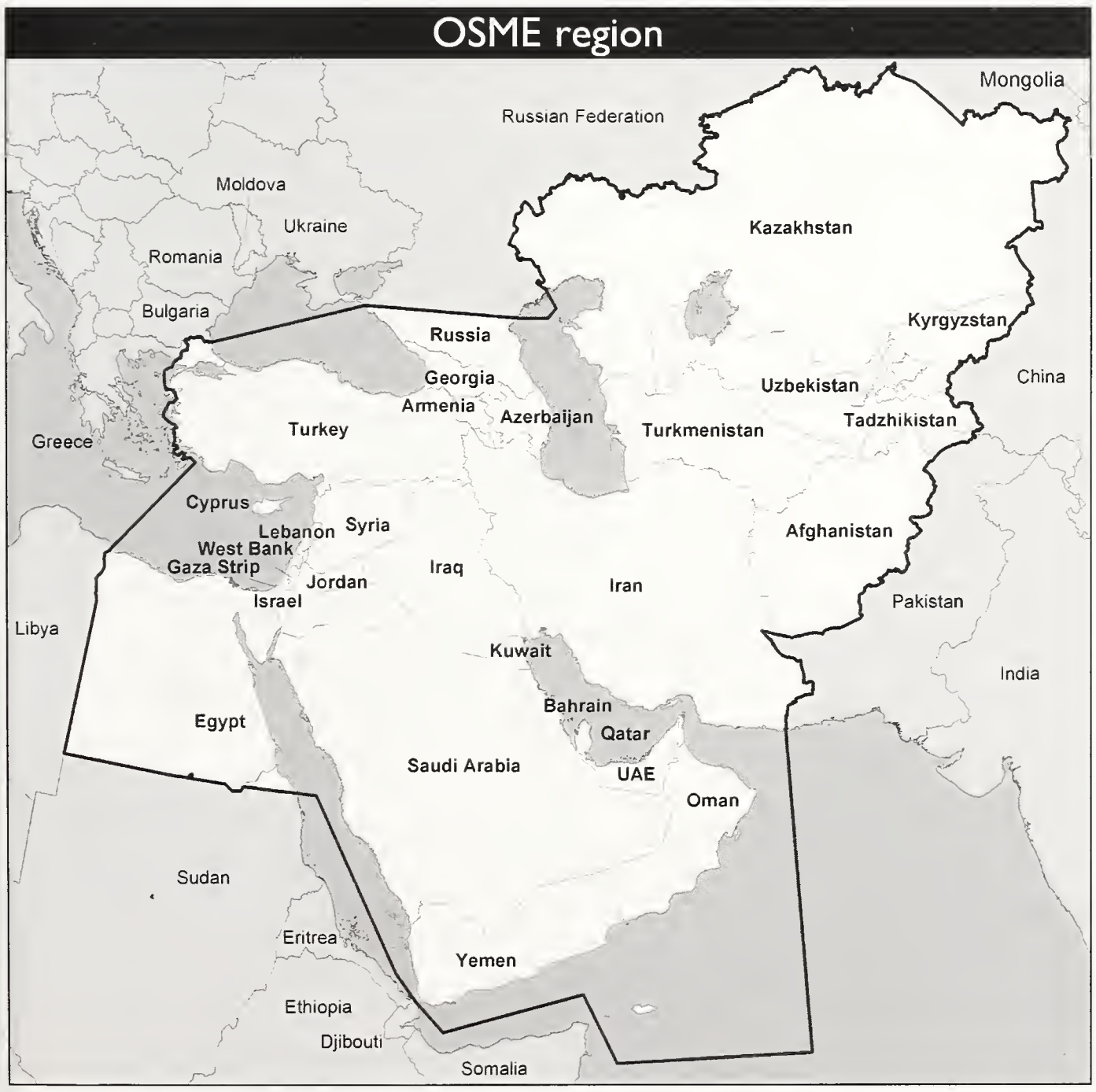

ISSN 0260-4736

OSME region map design
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colleagues at the RSPB

Typesetting & layout
by Eng-Li Green
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Printed by
Swallowtail Print
of Norwich, UK
sales@swallowtailprint.co.uk

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Opticron smartphone photoadapters are a convenient and inexpensive way of attaching your smartphone to your Opticron spottingscope eyepiece and shooting high magnification photos and video. **Available for iPhone 4/4S, 5/5S & 6 and Samsung Galaxy S3/S4/S5. Prices from £49.95**

Opticron equipment can be tried, tested and purchased at good optical retailers nationwide. For more information and to order a Product Guide please phone 01582 726522 or visit us online at www.opticron.co.uk

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